THE AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

Vol. V. BALTIMORE, APRIL, 1850. No. 10.

PRIZE ESSAY
ON
FARM BUILDINGS,
AND ON THE
MANAGEMENT OF THE FARM YARD.

BY JOHN WILKINSON,
Principal of Mt. Airy Agr. Institute, Germantown, Pa.

[The publisher of the *American Farmer* having offered a piece of Silver Plate, valued at $50, for the best essay on the subject of *Farm Buildings*, and *Management of the Farm Yard*, the committee appointed for the purpose, consisting of *Messrs. Cary* and *Naille*, of the Senate of Maryland, have awarded the prize to the following essay.]

To this subject, there has been a liberal application, of all the necessary means of investigation, in many parts of Europe, particularly in England; but the character of the plans, there, most approved, are all very illy adapted to the wants of the farmers of this country; yet, from the American essayist, the subject has received comparatively little attention; hence, little improvement has been made in the plans and modes of constructing buildings, in husbanding and administering food for domestic animals, in preserving and applying fertilizers, &c. In fact, there are very few who are capable to essay upon it, with any degree of interest to those interested, notwithstanding almost every farmer and planter are their own architects.

I have given much attention to the subject, for several years, and have had no inconsiderable degree of experience in it; nevertheless, I cannot but frankly confess that I sensibly feel my incapacity to treat upon a theme so intricate, and of such infinite importance to a fraternity so numerous and highly respectable; and as it will require but little time to communicate my small stock of knowledge of this subject, I have decided so to do, though at the risk of exposing my theory to the dissection and criticism of the mighty host of self-constituted architects, and rural economists of my country.

In the first place, it is of the first importance to select a proper site for the out-buildings of a farm —one that will secure the greatest convenience and economy. A central location, with regard to the farm, will possess advantages too obvious to need a comment; but circumstances, and frequently of an unalterable local character, will often make this site impracticable, as, in one case, the central portion of a farm may be a low alluvial plane; in another, a rugged hill; which would render either equally objectionable. But we may take with safety this position: that, in all cases, it will be commendable to approximate as nearly as is practicable to a central site.

I consider the best soil for the common purposes of the farmer, the best soil for a building site, particularly for a barn (viz.) a sandy loam.

If the soil of a barn yard be even very sandy, it will soon become impervious to water—a striking evidence of which, I have, in the yard which I now use, as one corner of it has been excavated for obtaining building sand; that portion now holds water like an iron kettle. In the second place, it is not of secondary importance to decide correctly as to what amount or extent of buildings are needed, or will be a profitable investment when constructed. As to the amount of room required for the accommodation of the regular stock of the farm, this is very easily estimated, by simply numbering the stock on hand; but the discreet farmer will be more provident, and less circumscribed in his views, than to provide for to-day only; and he will carefully investigate the susceptibility of improvement of his estate, and decide to what extent, by the skilful application of all the means of improvement and fertilization he can control, he will be enabled to increase the products of his land, and, in proportion, the farm stock, which should everywhere be as numerous as can be made profitable, as the progress of fertilization depends, to a great extent, on the amount of stock kept, and hence is proportionate. He should, at least, calculate to be able to double the live stock every 10 years.

It always eventuates in bad economy to put up new *farm buildings* no larger than are needed for immediate use, with a design to build an addition in a few years, as double the amount of room can be built, for the same expense, in the first instance, that can be in the second.

I contend that it is good economy, at the moderate price of building materials in this country, to have the out-buildings of the farm sufficiently capacious to house the entire products of the farm, without stacking, even the straw, as the loss accruing from stacking hay and corn fodder will, every

year, be more than equivalent to the interest of the necessary investment, at 10 per cent., in buildings.

There are two important principles that should never be forgotten, or lost sight of, in building. That is, that a greater area can be enclosed, with the same material, in a square than any other form; and that the higher a building is, providing it is so located that every story is easy of access, the more economical the structure, for the same roof is required for one story or ten; hence, in the erection of farm buildings, the natural advantages presented in a hill side should always be improved; and the entrance for the loaded vehicles should be as near the top of the building as possible.

In large grazing districts, where the stock is not stabled, or kept in yards, as is very common in N. York, and in the breeding and fattening districts of the North and West, generally, the hay barns should be movable, and of only 10 or 12 tons capacity, which, if properly constructed, and supplied with runners, can be moved by 6 pairs of oxen, or perhaps a score of mules. The oxen can be obtained in any good grazing neighborhood, without difficulty. A moveable barn for fodder should have but two sills under the posts; into these the posts should be framed, with a very strong tenon; the other two sills should be framed into the post about 2 inches above the shoulder, at the bottom of the post framed into the sills forming the runners. The runners are formed by merely chain pinning, on the under side, the sills that are under the posts, at both ends, in the form of a common sleigh runner. This will admit of moving the building in two directions without turning it.

I have used two barns of this description, for many years, with great convenience and satisfaction; but, in my present location, I have adopted the partial soiling system, and wintering all my stock in warm stables, and with warm food; the advantages of which, over the practice of feeding in open fields, or yards, are most obvious; even to this extent, that by the latter system, in saving of provender, and in the increased product of manure, from the same stock, with the much greater thrift and comfort of the stock, the advantages are fully sufficient to pay 30 per cent. per annum on the cost of a stable on the plan of that accompanying this. Where the manure heap in the yard is covered and snugly heaped, so that no rain falls upon it, it may be drawn out in winter as well as at any other time, which is another great advantage arising from keeping the farm stock in the stable.

The liquid manure vault, as often as it is filled, should be emptied, charcoal and all, on the top of the covered compost heap in the yard. All the suds of the wash room, old brines from pickled beef, steeps for seed wheat, weeds from the yards and gardens, manure from the horse stables and pig sties, should be all composted in one pile, and the heap be strewed lightly with gypsum, as often as it is covered.

The chaff of all grains having much dust, leaves of bitter weeds, &c. in it, should not be fed to the cattle, particularly to milch cows, as it is unhealthy, and not unfrequently imparts a bitter flavor to the milk. I use my chaff, if dusty, for sprinkling the stable floors, to absorb all superfluous moisture, for which it is very fine, and keeps the stables very dry and sweet; it is especially useful in the horse stable, and, when mingled with dry charcoal, entirely prevents the elimination of ammoniacal gas, which is extremely injurious to the eyes of horses.

The stalls of the stable should be thoroughly white-washed, at least as often as once a year; twice would be preferable. The floors of stables should always be perfectly tight, and so arranged that the urine will all run off. If the floors are open, the filth that accumulates under them, by being frequently moistened by warm liquid excretions, will constantly give off injurious and unpleasant effluvia. The amount of food proper to be fed to any domestic animal, at once, is just what the animal will devour at a meal. This rule is peculiarly applicable to the feeding of grain, roots, or fruits, and equally so in feeding hay with the ordinary arrangement of the rack; but in the use of the *hay tube*, described in my plan of stables, it is unimportant, as the hay in them is entirely unexposed to the air, or exhalations of the animals. If the strict rules of economy are adhered to, no whole grain or "corn" should be fed to any of the domestic animals, except the dung hill fowls (Galina), turkeys, and the like; but for these, I consider it bad economy to grind the grain, as there is much less waste, and greater convenience in feeding whole grain.

In the case of the road horse, that is required to be driven fast (for some at least), the whole oats would be preferable, as they are slower of digestion, and less purgative than when ground.

Bright, sound straw may be substituted for hay, to a very great extent, by chopping the straw, steeping it slightly, and mingling the meal with it; some long hay, however, seems to be necessary for the horse; whilst, in feeding horned animals, it may be dispensed with, provided their hay, straw, stalks, &c. are not chopped too fine. In the horse, the muscular action of the joles, and glands of the throat, that is required in mastication, is necessary to a proper excretion of saliva, so necessary to digestion; but this defect is obviated by the habits of a ruminant. I prefer a meal of mixed grains for cattle or horses, and would always recommend a small portion of *rye* in the mixture, particularly for mixing chopped feed, on account of its peculiar adhesive property. Where a pair of horses, otherwise matched, are unlike in spirit, the free one may be much reduced in spirit, by a greater proportion of rye in his feed, without reducing his strength.

There is no method, that I have tested, that compares, for convenience and economy both, in keeping working oxen in summer, with stabling, and feeding with green corn stalks that have been produced from corn sown broadcast, or planted very closely in drills; and if the work is very severe, about 8 quarts of sweet, fine, chopped hay, and one quart of provender, composed of wheaten bran and corn meal, equal parts, moistened, and fed at noon. Pigs should have little or no maize until they are 6 months old, as it has a greater tendency to fatten than to form bone or muscle, and not unfrequently destroys the animal that would make the best pork of any one in the herd, which is apparent from the fact of his great inclination to fatten, and his delicate bone and muscle. The less a hog exercises, the more rapidly he fattens, and the more tender will be the hams and shoulders, and the less food will he require; hence, the use of "swine for turning manure heaps" *is bad economy*. But to the buildings, more particularly.

Where stones are plenty, and of good quality, and lime not too dear, and timber scarce and dear, it will, of course, be economy to build of *stone*. But where timber and lumber are abundant and

good, the same amount of buildings can be erected at much less expense, of wood, than of stone; yet the builder should always bear in mind the paramount value of imperishable material, and also that the fire risk is much less. An individual, intending to build of imperishable material (stone or bricks), should have them hauled to the spot before commencing the erection of the building, that the teams and farm hands may not be required to be hauling to the neglect of the culture of the crops of the farm.

There should always be an extra supply of provisions laid up for the extra family occasioned by the building.

If framed buildings are to be erected, all the sawed lumber for the frame should be obtained the year previous, and carefully stacked under shelter, if possible, but should certainly be covered from the sun. The same course should also be pursued with the siding.

The timber for the frame should be cut in February, and hewn, framed, and erected immediately, as much of it will warp, if it lies long after being hewn, so that great difficulty will attend the erection of the frame. The sills and posts of a building should always be of timber least destructible. Hemlock is as good as white oak for a sill, if it is cut in February.

There is a frame barn on the farm on which I was bred which was erected about fifty years since, by my grandfather; the frame of which is of white oak and hemlock, cut in the "old of the moon in February." The frame is still perfect, and has never had any repair, except one-half of the front sill has been supplied; the original one was in two pieces, spliced, one-half of white oak (upland oak), the other of hemlock. The oak has been supplied, about seven years since, and the hemlock is still perfect; though the end of the oak was under the horse stable, a part of it,t bu it decayed at the splice, where its exposure was the same as the hemlock. Perpendicular siding for barns has been objected to, on account, as has been claimed, of the rain beating in between the siding boards, to the injury of the frame; but the barn above described was sided "up and down" (as it is called). The siding is still good, as well as the frame, with the exception of those portions of it which were occasionally in contact with the manure in the yard. The hay and grain always kept well in it.

The trench in which the foundation of farm buildings should be lain, should be at least 2 feet in depth, unless founded on rock; and they are equally as substantial when the trench is closely filled with small stones, and grouted, as they are when the best building stones are used in the trenches below ground, which, where good stone are scarce, is a matter of great enonomy.

Where there is danger of water rising or standing in a cellar, an effectual preventive will be found in simply sinking the trench for the cellar walls 18 inches below the bottom of the cellar, and filling it, with small stones, about one foot at the bottom, or within 6 inches of the bottom of the cellar, and providing an outlet for the water that may accumulate in the drain under the foundation walls. The outlet should be lain with a cement pipe, provided with a leaden strainer at the upper end; for if the outlet drain is also made a common stone underdrain, it will afford a burrowing place for vermin, and they will soon fill it, and destroy the work. The *farm buildings* should always, if possible, be located on the summit of an elevation, that there may be a descent every way from them; but, as this is not always practicable, and neither is a dry site always obtainable, it will be found of infinite advantage, in rendering the grounds on the upper side of the buildings dry, to sink a deep under drain (which should be filled within 4 inches of the surface, with stones,) and the direction of the drain such as to convey the surplus water entirely out of the way of the buildings. I have seen a wet, clay site rendered delightful by this arrangement and location of a single drain, well constructed. See Wilkinson's "Essay on under-draining" for directions in the construction of the drain.

The court of the barn should be provided with an escape for the leakings from it, which should be collected, without the enclosure, into a reservoir or basin, excavated for the purpose; this should have several light furrows running in converging lines from the basin along the hill side below, that, in case of an overflow, the surplus water may serve for proper irrigation. The lye retained in the basin will always afford an abundant supply of a choice solution for watering vines, flowers, &c. I have a basin of this description, holding about 200 hhds., arranged as above recommended, the contents of which I cart out, three times a year, and apply it on grass land, by means of a liquid manure cart, so arranged as to distribute it scantily. The cart is filled by a pump, which costs but three dollars, by which one man can pump 120 gallons in 3 minutes. Wherever I have applied this liquid, its effects are most apparent.

A great variety of opinion prevails with regard to the proper slope for a roof. If a roof is too steep, the shingles near the eaves are liable to be worn out by the rapid flow of water; if too flat, the water will stand on the roof too long, and the shingles become saturated to that degree, that they are a long time in drying, hence a tendency to decay and to produce moss. The proper length for a rafter for a shingle roof is 3-5 of the width of the buildings; for metal, they may be much shorter; but for a straw roof, they should be a little more than 3-5. There is a great prejudice in this country against a straw roof or thatch; but, if the workmanship of their manufacture is properly done, they will be neither unsightly or wanting in durability. Where rye grows well, a straw roof will not cost one-third as much as a good shingle one. The straw for thatching should be long and perfectly bright, and threshed perfectly clean, otherwise it will be predisposed to decay, and will attract vermin that will destroy it. I have known a straw thatch to form an effectual roof for 25 years.

The cheapest and best gutter that I can recommend is made of *tin*.

The first or eave course of shingles should be cedar, at least 2½ feet long, and lain not less than 14 inches to the weather, which will admit of making the gutter on the eave course of shingles, by placing some strips of 1¼ inch plank, 4 or 5 inches wide, on the edge, and nailing ("toe-nailing") them on the upper side, placing them end to end, until they extend the entire length of roof, as these will form a support for the tin gutter, which is made by soldering a sufficient number of sheets of tin together to make a sheet the length of the eaves, which is to be strongly nailed on the top of the strips, above described; after which, it is fitted to the angle formed by the strip and the roof, and

the second course of shingles lain on to the tin. This will form a first rate and cheap gutter.

Tin roofs, or gutters, should always be kept well painted. White lead is the best paint. In placing and arranging the water tub, there are several very important things to be observed, though, like many others to which I have alluded, they may, by many, be considered non-important; but with such, I must beg leave to differ, and shall insist that no individual, who desires to adopt any thing herein recommended, will complain of my explicitness.

The best tub to be exposed to the sun and water is a half of a yellow pine linseed oil cask, that will contain about 60 gallons; it should be iron bound. The base should be excavated to the depth of 3 feet, and 7 feet across (circular), provided with an under drain outlet, for the discharge of the water that may overflow, that which is discharged from the tub when it is cleaned, and what may collect from the ground. If the tub is supplied with water from a spring, by a constant flow from a pipe, that pipe should enter the tub from the bottom, through a hole just fitting the pipe, which should project a ¼ of an inch above the bottom, where a lead collar of sheet lead should be soldered around it at the end, with a corresponding collar of gum elastic, and both firmly nailed tothe bottom of the tub.

The discharge pipe should be a little larger than the supply pipe, and should be placed near one side of the tub, inside; the upper end provided with a leaden strainer, which should be so placed as to keep the water to the desired height in the tub, and prevent its overflow at the top of the tub. A leaden collar should be soldered around the discharge pipe, with a rubber one under it, and nailed to the bottom of the tub, the pipe projecting some 14 inches below, and depositing its water among the stones forming the foundation for the tub. There should be two strong posts set in the excavation before it is filled with stone, so set that the tub will just fit between them, to which it should be firmly nailed. The excavation should be filled with small stone, to the surface of the ground; these should be covered with pine shavings, and about 4 inches of earth returned. This will prevent the tub from ever being moved by frost, and will make the ground always perfectly dry around it.

I consider the dairy the most profitable farm stock, though, where butter is made, pork may be made to pay well; but any more swine than can be kept through the summer, on grass, refuse fruit, and the swill of the house, is very unprofitable, at the North. How lucrative pork making may be where land and grain is low, I cannot say from experience; but none but a favorable inference can be drawn from the statistics of the great pork regions. Swine require as much salt as any other domestic animal, and should have a lump of charcoal lying in the pen constantly, and be fed a little sulphur occasionally. Pigs which are confined in pens, in summer, should have plenty of succulent green food, such as clover, parsley, cornstalks, and the like. They do much best one in a pen.

I use iron troughs, which cost but one dollar each. See description of piggery in my plan.

The barn yard should always front or open to the south, and should be supplied with a dense row of maple or elm trees, for shade, just without the enclosure; if they are within the yard, there is great danger of tripping the cattle in the yard, by their being hooked or gored against them.

All the manure of the farm should be drawn out and ploughed in, in a long or undecomposed state except some be used for composting, when it should become fine before it is used. None but mild lime should ever be used in compost heaps. (See Hyatt on lime and marl.)

Very much more of importance might be said on the subjects treated on in this essay; but, fearing that it is already longer than will be published or read, I will close.

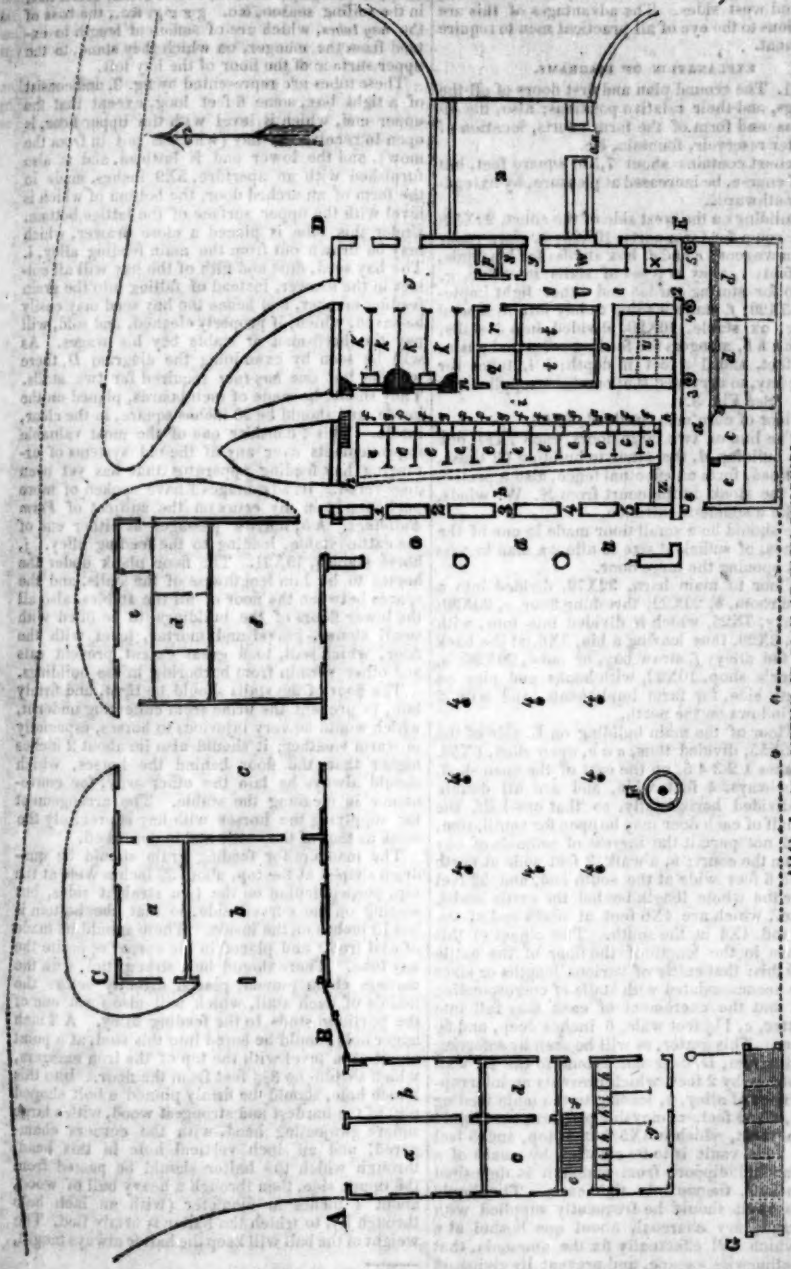


FIG. 1.—DESCRIPTION OF PLAN OF FARM BUILDINGS

The plan herein described is designed for a level site, or one with a slight descent to the south, though it is equally well adapted to a descent in any direction.

The buildings enclose the barn yard on the east, north and west sides. The advantages of this are too obvious to the eye of all practical men to require a comment.

EXPLANATION OF DIAGRAMS.

Fig. I. The ground plan and first floors of all the buildings, and their relative positions; also, the dimensions and form of the farm courts, location of the water reservoir, fountain, &c.

The court contains about 7,550 square feet, but may, of course, be increased at pleasure, by extending it southward.

A. Building on the west side of the court, 22X52; *a*, store room for farm carts, 10X25; *b*, store room for farm wagons; *c* and *d*, box stables for hospitals, 10X10 feet; *e*, alley in front of stalls in stable, *g*, and also for storing garden and other light implements, 5X20; *f*, stairs leading to hay loft in second story; *g*, ox stable, 10X20, divided into 4 stalls, 5X10; *h h h h*, mangers for feeding roots and grain, 1½X4 feet, and 1½ feet in depth; *i i*, tubes for feeding hay, so arranged that one tube supplies two stalls. (See Fig. 3.)

G. Floor of corn crib, latticed, 5X26.

B. The line of two large doors, each 7X14, one hung to building *A*, the other to building *C*; these, when closed, form an effectual fence, also a protection of the stock in the court from N. W. winds, and make a spacious entrance.

There should be a small door made in one of the large ones, of sufficient size to allow a man to pass without opening the large door.

C. Floor to main barn, 32X72, divided into a carriage room, *b*, 20X22; threshing floor, *c*, 20X30; *a*, granary, 7X26, which is divided into bins, with alley, *e*, 3X20, thus leaving a bin, 3X6, at the back end of the alley; *f*, straw bay, or mow, 20X26; *a*, carpenter's shop, 10X22, with hooks and pins on the south side, for farm implements, and with 2 large windows on the north.

D. Floor of the main building on E. side of the yard, 35X55, divided thus, *a a a*, open shed, 6X52. The spaces 1 2 3 4 5, on the east of the open shed, are door-ways, 4 feet wide, and are all double doors, divided horizontally, so that one-half, the upper half of each door may be open for ventilation, and still not permit the ingress of animals of any kind from the court; *b*, a walk, 3 feet wide at north end, and 6 feet wide at the south end, and 52 feet long, or the whole length behind the cattle stalls, *c c c*, &c., which are 4X6 feet at north end of the stable, and 4X4 at the south. The object of this difference in the length of the floor of the cattle stalls is this: that cattle of various lengths or sizes may be accommodated with stalls of corresponding length, that the excrement of each may fall into the gutter, *c*, 1½ feet wide, 6 inches deep, and 50 feet long. This gutter, as will be seen by referring to the diagram, *D*, does not extend to the N. wall of the stable by 2 feet, which prevents an interruption in floor of alley, *h*, leading to the main feeding alley, *i*, 6X52 feet. *z*, movable platform over liquid manure vault, which is 4X5 feet at top, and 5 feet deep. This vault is to be emptied by means of a long handled dipper, from which it is deposited into buckets, thence into tight carts. The liquid manure vault should be frequently supplied with pulverized, dry charcoal, about one bushel at a time, which will effectually fix the ammonia, that would otherwise escape, and prevent its giving off an unpleasant effluvia in the stables. *f f f*, &c., mangers for cattle, 18 inches by 4 feet, and 1 foot deep, for feeding cut feed, roots, grain, green food in the soiling season, &c. *g g g g*, &c., the base of the *hay tubes*, which are of sufficient length to extend from the manger, on which they stand, to the upper surface of the floor of the hay loft.

These tubes are represented by fig. 3, and consist of a tight box, some 6 feet long, except that the upper end, which is level with the upper floor, is open to receive the hay (which is put in from the mow), and the lower end is latticed, and is also furnished with an aperture, 5X9 inches, made in the form of an arched door, the bottom of which is level with the upper surface of the lattice bottom. Under this tube is placed a close drawer, which may be drawn out from the main feeding alley, *i*. The hay seed, dust and filth of the hay will all collect in the drawer, instead of falling into the grain feeding manger, and hence the hay seed may easily be saved, which, if properly cleaned, and sold, will pay the herdsman or stable boy his wages. As will be seen by examining the diagram *D*, there will be but one *hay tube* required for two stalls. They should be made of inch boards, planed on the inside, and should be 20 inches square, in the clear, inside. This I consider one of the most valuable improvements over any of the old systems of arranging hay feeding apparatus that has yet been discovered. Its advantages I have spoken of more particularly in my essay on the subject of *Farm Buildings*. *h h*, narrow passages at either end of the cattle stable, leading to the feeding alley. *j*, horse stables, 19X21. The floor plank under the horses to be lain lengthwise of the stalls, and the spaces between the floor of all the stables, also all the lower floors of the buildings, to be filled with small stones, gravel and mortar, level with the floor, which will, to a great extent, prevent rats and other vermin from harboring in the buildings.

The floor of the stalls should be tight, and firmly lain, to prevent the urine from collecting under it, which would be very injurious to horses, especially in warm weather; it should also lie about 2 inches higher than the floor behind the horses, which should always be lain the other way, for convenience in cleaning the stable. The arrangement for supplying the horses with hay is precisely the same as that of the cattle stable described.

The mangers for feeding grain should be quadrant shaped at the top, about 20 inches wide at the top, perpendicular on the two straight sides, but sloping on the curved side, so that the bottom is but 13 inches on the inside. These should be made of cast iron,* and placed in the corner opposite the hay tube. There should be a strong stud, with the corners chain pinned, placed directly before the middle of each stall, which will also form one of the partition studs to the feeding alley. A 2 inch auger hole should be bored into this stud, at a point about on a level with the top of the iron mangers, which should be 3½ feet from the floor. Into this 2 inch hole, should be firmly pinned a bolt shaped pin, of the hardest and strongest wood, with a large square projecting head, with the corners champered, and an inch vertical hole in this head, through which the halter should be passed from the upper side, then through a heavy ball of wood, about 4 inches in diameter (with an inch hole through it), to which the halter is firmly tied. The weight of the ball will keep the halter always taught,

* They can be had at Savery & Co.'s hollow ware furnace, Philadelphia, for $1 each.

and will effectually prevent what has ruined many a valuable horse, viz., the animal from getting his hind foot fast in the slack of the halter. *n*, passage from the feeding alley to the horse stable; *p*, harness room, 5X6; *q* and *r*, bins for grain or meal, for the use of the stables, one opening on alley, *o*, the other on *i*; *t t*, bins for storing chopped hay, stalks or straw for the use of the stables, 6X13; *v*, cistern for rain water, 7½X9½ feet inside, with 18 inch stone walls. The two dotted lines across the cistern, each way, represent 1½ inch iron rods, by which the walls are anchored. The bottom of the cistern is 10 inches higher than the surrounding floors, in order that all the water may be drawn off by means of a cock for the purpose. The cistern receives its supply of water from the roof of the main building, in which it is located. As will be seen in the perspective view of this building, containing the cistern, the eaves of two slopes of the roof both empty or deposit their water into the same gutter, which is formed by a plain sheet of tin or copper, the whole length of the building, and about 2½ feet wide, which is lain on the eaves of each roof, which have been previously furred and sheathed, so as to give a proper descent to the point where the leader is attached, that conveys the water to the cistern, which is, for both economy and convenience sake, directly over the cistern.

The gutter to that part of the roof which deposits its water into the court should be so arranged as to discharge at the south end; in which case, it will only require a leader about 17 feet long to convey the water from it, also, into the cistern. This leader, and all others, except perpendicular ones, should always, if possible, be placed on the sunny side of the building, which will prevent their being destroyed by the water congealing in them. The walls of the cistern should be studded on the outside, and the space closely filled with dry saw dust, or tan bark, to protect it from the frost, as it is entirely above ground. If this building and the court can conveniently be supplied with durable running water from a spring, or by means of the hydraulic ram, the cistern may then be dispensed with; but in the absence of the natural supply, the artificial, by this arrangement of the cistern, will be found ample, and very convenient. The water tub in the court can be supplied from the cistern, by a lead or cement pipe, from the bottom of the cistern, thence under ground to the tub. The pipe should enter the cistern from the bottom, and should not project more than ⅛ of an inch above the bottom, where it should be at least ½ inch thick, and made smooth and level.

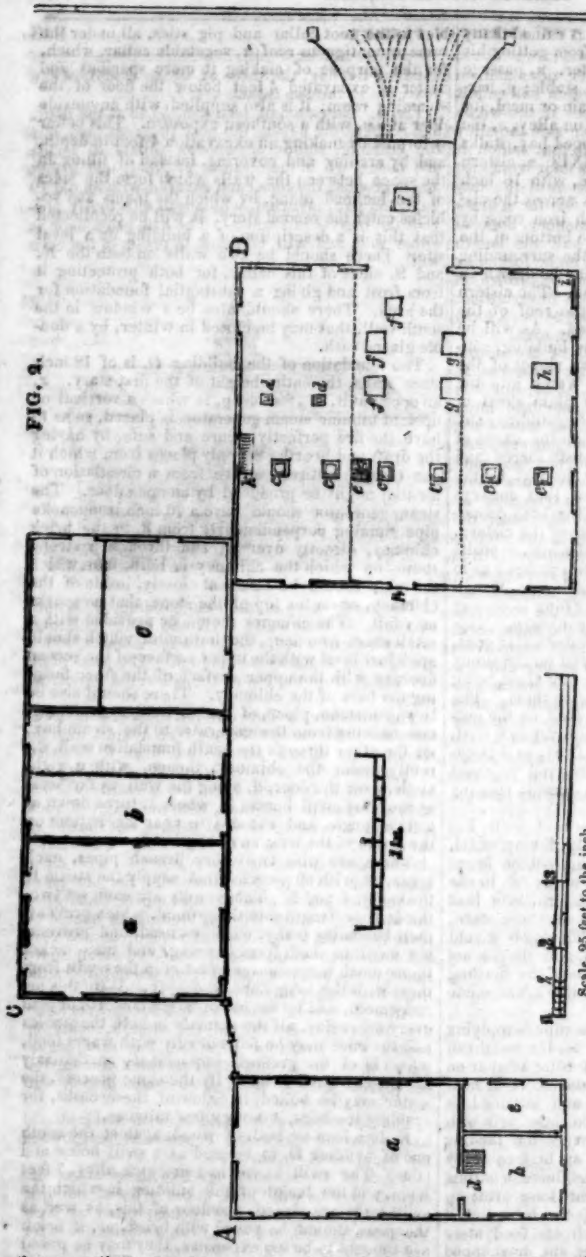
The water is admitted into the pipe supplying the tub in the yard by raising a leaden weight of some 8 or 10 lbs., with a piece of solid leather on it, by means of a simple lever, the short arm of which is directly over the pipe, and attached to the leaden weight by a chain, the long arm projecting to some convenient point in the feeding alley, outside of the cistern, and so high as to be entirely out of the way. It should have a strong cord attached near the end of the long arm; by pulling which, the weight forming the valve to the pipe is raised. *u*, steaming room and feed store room; *w*, steam box, for steaming cut or chopped straw, stalks or coarse hay and roots; *s*, coal bin, which is filled from second floor, by dumping the coal from the cart through a trap door in the floor; *o o o o*, a walk or aisle between the bins and apparatus in steaming room, also leading from the stables to the root cellar and pig sties, all under the same or contiguous roof; *x*, vegetable cellar, which, for the purpose of making it more spacious and better is excavated 4 feet below the floor of the steaming room; it is also supplied with an outside door at *o u*, with a southern exposure. This cellar is formed by making an excavation 4 feet in depth, and by arching and covering, instead of filling in the space between the walls which form the sides of the inclined plane, by which the teams and vehicles enter the second story. It will be recollected that this is a description of a building on a level site. There should be two walls on both the N. and S. sides of this cellar, for both protecting it from frost and giving a substantial foundation for the arch. There should also be a window in the south wall, that may be closed in winter, by a double glazed sash.

The foundation of the building *D*. is of 18 inch stone walls, the entire height of the first story. *x*, an open vault, 4½ feet deep, in which a vertical or upright tubular steam generator is placed, so as to have the fire perfectly secure and safe, by having the draft and hearth (the only places from which it can escape) entirely secure from a circulation of air that might be produced by an open door. The steam generator should have a 10 inch iron smoke pipe running perpendicularly from it to the brick chimney, directly over it, and through a strong stone, on which the chimney is built, into which the pipe should be masoned closely, inside of the chimney, or on the top of the stone, that no sparks may fall. The chimney should be provided with a small sheet iron door, the bottom of which should open just level with the upper surface of the second floor, or with the upper surface of the stone forming the base of the chimney. There should also be two inch steam pipes, of lead or iron, as preferred, one running from the generator to the steam box, *w*; the other through the south foundation wall, directly under the chimney, thence, with a right angle, over the door, 2, along the wall as far west as the west swill house, *E*, where it turns down at a right angle, and extends to near the bottom on the inside of the west swill hogshead.

There are also two other branch pipes, each arranged with stop-cocks, that supply the steam to the casks, 4 and 5. These casks are each set two-thirds their length into the ground, which prevents their becoming leaky, when not used, and prevents the swill in them from freezing, and also makes them much more convenient to dip the swill from them with the long handled dipper. With this arrangement, and by the use of 20 cents worth of coal every other day, all the animals in both the stables and the sties may be fed entirely with warm food, which is of the greatest importance, particularly for the cows and swine. By the same process, the water may be boiled, in either of these casks, for scalding the hogs, in a very few minutes.

E Is a lean-to, built of wood, against the south end of building *D*, to be used as a swill house and sties. The swill house is merely an alley, 7 feet wide, and the length of the building in which the swill casks are placed; the floor of this, as well as the pens, should be paved with brick, or, if brick are thought to be too expensive, they may be paved with cobbatt stone or small boulders. The pens *c c*, for single animals, and the larger ones for a number. *d d*, are all so arranged that the swill from the casks may, with little labor, be put in the troughs; and each pen has an open yard, into which the

FIG. 2.



swine may go at their pleasure. The passage ways leading to each of the yards are closed by a self-adjusting door, which is opened by the swine, either way, as they pass in or out.—This self-shutting door is very simple, and less expensive than an ordinary door with hinges. It is suspended on wooden pivots, placed about one-third of the length of the door from the top, which makes the bottom the heaviest; hence it may be opened with ease by the animal pressing his nose against it, and gently swings shut after him.

F. Water tub in the court. 4 4 4 4, &c., represents the positions of eight strong posts, well set in the ground, and 10 feet long above ground, which support a straw roof over manure heap; in which, all that accumulates in the stables is deposited. The two circles in a line with the west side of building *D* represents the bases of two strong stone pillars, or wooden ones, if preferred.

FIG. 2. Second floor of buildings *A*, *C* and *D*.

A. Second floor of building on the west side of the yard; *a*, hay loft, 20X25; *b*, gardener's room for seeds, pots, tubs, boxes, etc., 15X15; *d*, landing of stairs; *e*, hen house, with moveable nest boxes, shelves, roost poles, etc, lathed and plastered with hydraulic cement, so as to admit of cleaning it with scalding water; *c*, second floor of grain barn; *a*, mow over carriage room and carpenter's shop, 22X30; *b*, mow over one half of the threshing floor, supported by a swing girth, and that by a truss; *c*, grain mow entirely over the granary, and the straw mow or bay, 30X26.

D. Second floor of cattle stable, horse stable, steaming room, etc., 35X55; *c c c c*, &c., the upper end of hay tubes; *e*, aperture in the floor, over which a tight tube, 2 feet square, stands, which opens into a lattice dome on the roof, for ventilating the stables below; *d d*, hay tubes leading to horse stalls. The hay tubes may be mowed over in commencing to fill the mows, the same as if they were not there, until the hay is some 7 or 8 feet in depth, when an alley should be cut through the hay, directly over the tubes, placing the hay removed back upon the mow on either side, thus forming an alley by which the hay may be put into the tubes. After the alley is cut, and the hay removed, if all the mow room is needed above, short pieces of timber may be lain across the alley thus

formed, resting on the hay or either side; and on these, some pieces of old boards, which will admit of mowing over the whole area; but if the whole is not required, the mows on either side the alley may be continued up in a line with that which is cut. The dotted lines dividing this floor from east to west represent the line of the front of the hay mows on either side of the space left for a drive way. By filling the mow in this manner, none of the hay is to be moved more than half the length of the mow; neither is any of it to be forked or pitched through a window, but may be thrown off at any point along the load, without interruption; and from 30 to 40 tons may be mowed before a forkful need be raised above the top of the load.

After the mows north and south of the dotted lines are filled, the drive way, or any portion of it, may be filled from a large window, at 14; but it is designed to leave vacant a square near the large doors of the drive way, and over the trap doors *f f f* and *g g*, where a portable horse power should be set, for cutting fodder, as the chopped feed may then be caved through the trap doors, from which it will fall into the bins below. *h*, trap door by which the cistern is entered; *j*, trap door over the stone neck, or tube which is made in the arch of the cellar, under the entrance way, outside. From this door, the bins in the cellar are to be filled with roots, by means of a portable lattice bottom shoot, which may be so placed as to deposit the roots into any part of the cellar, and will, at the same time, screen out all the dirt. *k*, landing of stairs from feeding alley below, which, it will be perceived, is about on a line with the hay tubes, and near a window opening to the north, which will light the alley out through the mow over the hay tubes; *i*, base of chimney, 18 inches square inside, arched at the top, and a piece of wire gauze covering the space in the chimney, masoned in between the last two courses of brick. This will effectually prevent the sparks from escaping.

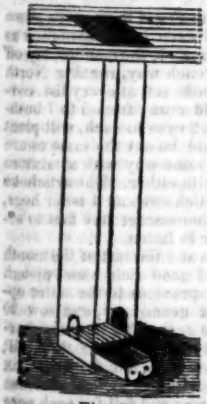


Fig. 3.

Fig. 3. A view of the hay tube, which is represented by a linear drawing, in order that both interior and exterior views may be given.

By the use of this arrangement, for feeding hay, a very great waste of the hay is prevented, that unavoidably occurs where it is thrown down into a feeding alley from the mow, and again handled over by putting into common racks, in which it lies exposed to the air, after, as is frequently the case, being tramped on by careless workmen, with their boots well laden from the yard; and as the hay racks are generally arranged, they slope towards the stall; hence, every breath which the animal exhales passes into or through the hay; besides this, the neck, head and ears are continually filled with seed and filth from the hay. All this is effectually obviated in the use of the *hay tube*, besides the saving of an amount of unnecessary labor in handling the hay, the value of which would, in one year, put in the *hay tubes*.

Fig. 4. Elevation of *corn crib*, 5X26 at the floor, and 8X26 at the eaves; the post 10½ feet high, out the building, stands on wooden pillars of locust and cedar, set in the ground 2½ feet, and 3 feet above ground, the tops each covered with an old 12 quart tin pan, inverted, which will effectually prevent the ingress of vermin. The crib has a door at either end, and will be found to preserve the corn well.

Fig. 4.

The lower story of the east building, *D*, is built of stone, 18 inch walls. All the other buildings are entirely of wood, except the foundations, which are of stone about 20 inches high. The posts of all are 18 feet from the top of the sill to the top of the plate.

The pilasters, as shown in the perspective elevation, are to be made of strong inch boards, with no siding under them; all the buildings to be sided "up and down," or perpendicularly, the siding not to be planed, or painted, but to be white-washed with a preparation of lime, with one quart of rock salt, and two quarts of coal ash, to one bushel of stone lime, applied once in two years. The stables should be white-washed every autumn, with clean lime. The walls of the cistern, and the bottom of it, should be lain in common lime mortar; and after the wall and bottom are dry, the interior should be plastered with a light coat of cement mortar (say 3-8 of an inch in thickness), made of clean sharp sand 2 parts, and one part of fresh ground hydraulic lime, thoroughly mixed before it is wetted.

After the cement plastering has become perfectly dry, the entire interior of the cistern should be coated with hydraulic lime and fine sand, equal parts, mixed to a consistency as thick as can well be applied with a brush, two coats, which will make it water proof.

The gutter behind the stalls in cattle stable should have a descent of about 5 inches in 50 feet, toward the liquid manure vault, *z*.

A suit of frame buildings like those above described may be well built, at the price of building material in the interior of Pennsylvania or New York, for $2,800, and will be of sufficient size for ordinary farms of 150 to 200 acres.

In case an individual wishing to build after this plan would prefer a metallic or cement roof, the roof of the building *D* may be built with two slopes instead of three, and much less inclined.

In the above estimate of cost, the siding is reckoned at $16 per 1,000 feet, and the shingles at $4.50 per 1,000, allowing a thousand to lay 10 feet square.

WORK FOR THE MONTH.

APRIL.

The time has come for action, so let us go at once to work, in order that each and all of us may so make our arrangements, as that we may be in advance with whatever may be necessary to be done. If not done before, a general overhauling of implements and tools should forthwith take place, and all that require it, be immediately repaired, so as that they may be in readiness whenever needed in the operations of the farm. The delay of the discharge of this duty, for only a few days, may put you back in your work as many more, and thus throw you so far behind time as to make it difficult for you to catch up with it during the season. With this hint we shall proceed to point out what should be attended to

ON THE FARM.

Hauling out manure.—If you have not done so already, you should without farther delay, haul your manure out upon your ground intended for corn. Previously to doing so, however, if you can command it, mix 1 bushel of plaster with every 20 double-horse cart loads of the manure. If not prepared to spread and plough your manure in as you may haul it out, distribute it in such conical piles as will give you twenty loads to each acre, so that as little loss as possible may ensue from rains, and from the evaporations of the atmosphere. It would be a good disposition of time, to cover your manure piles with the surrounding mould, should it be necessary to let it remain for some days; but if this cannot be done, it will be well to press the piles with the back of your shovels, so as to turn the rain, and as far as may be, arrest fermentation in the heaps. When one has gone to the trouble of accumulating manure, he should certainly go a little farther, and preserve its quality from deterioration.

Oats.—This grain, if not already seeded, should be put in with all possible speed, as the crop should be set sufficiently early to have time to mature before the intense heats and droughts of late summer, it being a well established fact, that the early sown oats invariably make the most and best grain. But unless there be substance in the soil to sustain and nurture the plants, unless the elements of fertility be therein present, to encourage the growth of the plant and elaborate the berry, no reasonable grower of this grain should expect a good crop. To calculate on a remunerating product from a worn-out field, is to indulge one of the greatest fallacies that ever led the mind of man astray. Equally reasonable would it be to suppose that a man could sustain himself in his daily toils without food, as that a good crop of oats, or any other product, can be grown in land that is deprived of all of the elements of production, or upon land which has been so scourged in the course of a long continued course of improvident cropping, as to be reduced to a condition bordering on sterility.

Manuring.—If the field on which you intend to pitch your oat crop is a poor one, you may ensure yourself a fair yield, by either of the following composts. The quantities are intended for an acre. 1. Ten loads of marsh mud, 10 bushels of lime and 10 bushels of ashes, to be thoroughly mixed together, spread broadcast and ploughed in. 2. Ten loads of woods mould and leaves, or pine shatters, 10 bushels of lime and 10 bushels of ashes to be treated as above. 3. Ten loads of stable or barn-yard manure, 10 bushels of ashes, and 1 bushel of plaster. 4. 8 bushels of bone-earth, 10 bushels of ashes, and 1 bushel of plaster, to be mixed together and suffered to remain in a heap until the mass becomes heated, then to be spread and ploughed in. Either of these dressings would not only ensure a fair crop of oats, but enable you to sow clover seed with your oats, with the surety of getting a fair stand of clover; which, if limed next fall, at the rate of 25 bushels to the acre, would be the means of carrying your field forward to a state of desirable fertility. 5. 300 pounds of guano and 1 bushel of plaster, will also give you a good crop of oats, besides enabling you to sow clover with your oats; your clover must be limed next fall, as stated above.

Soils.—Oats will grow on any good soils, best on grass swards or clover lays. In these latter, however, the worm is frequently destructive to the young oat plants; this may be prevented by sowing broadcast 2 bushels of salt per acre.

Preparation of the ground.—Plough deep, and thoroughly pulverize by harrowing and rolling.

Quantity of seed per acre.—Sow 2 bushels of seed to the acre, and be sure to sow good, heavy well cleaned oats. If your soil be really fertile, or you should manure it generously, 3 bushels of seed will be better than 2. After sowing your seed and harrowing the ground, then complete your work by rolling.

Barley.—If you have a good strong loamy field or lot that would grow a good crop of corn, seed it to barley, being sure to plough and pulverize it well. 2 bushels of seed to the acre is about the right quantity. If you desire to get it into clover, dress it with, say, 10 bushels of ashes and 8 of bone-earth per acre.

Early Potatoes.—Plant as early this month as possible; for the mode and manure, see our advice of last month.

Artichokes.—If you desire to get in an acre or two of this root, select a good deep loam, manure it as for a full crop of corn, plough in the manure, lay off your furrows 3 by 3 feet each way, running North and South; drop an artichoke sett at every list, cover and treat as you would corn: from 5 to 7 bushels of seed, cut into setts, 2 eyes to each, will plant an acre. The setts should be cut the same as are potatoes, and dusted the same way with a mixture of plaster and ashes, or with either. The artichoke is equally good to feed milch cows as it is for hogs, and excellent for both, it encourages the first to secrete milk, and the latter to fatten.

Lucerne.—Between this and the last of the month select an acre or two of good rich loam, plough and cross plough it well; previous to the latter operation, manure the land generously, and sow 20 lbs. of lucerne seed to the acre, after thorough harrowing, harrow the seed lightly in and then roll; keep the patch clean this season, and for five or six succeeding ones, your lot will enable you to soil ten head of stock during summer and fall for each acre you may have in lucerne. The seed may be sown broadcast or in drills, the latter the best.

Root Culture.—If there be any of our readers who intend to cultivate roots as winter food for their milch cows and other stock, to such we would take this early opportunity of saying that they should commence at once to prepare the manure, as all roots delight most in such manures as are well bro-

ken down in fibre, by decomposition. Composts formed of marsh-mud, road scrapings, earth from head-lands, woods-mould and barn-yard or stable manure, answer admirably for such culture. The proportion of barn-yard or stable manure, should form from one-third to one-half of the body of the compost; which, when formed, should be worked over every ten days or two weeks, to let in the air, make the mixture the more equable, and excite to more general fermentation and decay of the component ligneous parts. In the selection of kinds of roots for culture, the *Carrot, Parsnip, Mangel, Wurtzel, Sugar Beet and Ruta Baga*, should all be attended to. The *first* of these, besides being peculiarly adapted for the food of milch cows, is most excellent to be used as an *alterative* food for horses, tending, as it does, to loosen the hide, improve the coat and general appearance of the latter animals. All of the above named roots, if given to milch cows, cut up fine, a peck at a meal, in addition to their long feed, greatly adds to their powers of secreting milk through the winter; and while it increases the quantity yielded, improves its quality.

The four first named roots should be drilled in during the month of May, or very early, say during the first week in June; the *latter* will answer to be seeded any time in the month of June, or during the first week in July: so far as quantity of product is concerned, the earlier the better, in the designated months.

We have given a formula for a compost above; but will here remark, that a good dressing of any well rotted manure will answer, and that its power of prolonged benefit will be greatly increased by a mixture with plaster, in the proportion of 1 bushel to every 20 double horse cart loads of the compost or rotted manure; and we will farther add, that 200 lbs. of guano and 1 bus. of plaster, per acre, mixed together, will ensure a remunerating crop of roots—so also, will 10 bushels of bone earth, an equal quantity of ashes and 1 bushel of plaster.

Corn planting.—As to the *proper time* of planting corn, that must be regulated by locality and seasons. In a country like this, stretching over many degrees of latitude, and presenting all sorts of climates and varied temperatures, it is impossible to definitely fix any day for this operation; the time when corn should be gotten in, must, therefore, be governed as we have premised by localities and seasons. But as a general rule, it may be assumed that it is always best to put in corn *early*, as in an average of years, it succeeds best when thus planted. Therefore, it may be farther assumed as a safe rule, that you should get your corn in as soon after the frost is out of the ground, as it can be ploughed and put into fine tilth.

Extent of crop.—Unless your land be fertile, plant no more corn than you can manure; and be sure to tend that well. The corn plant being one that requires full diet, it is futile to expect to find a remunerating return for labor bestowed, except when grown in soils naturally rich, or where they may be made so by plentiful applications of enriching manures. With good land, well prepared, well manured, well cultivated and favorable seasons, a hundred bushels of corn may be grown on an acre; and under such concurring circumstances, no one ought to be satisfied with less, even in large fields, than an average product of fifty or sixty bushels on that quantity of land. And yet, how many there are, who plod on cultivating poor exhausted soils in corn, lavishly expending their labor and sweat, who reap, as their reward, some two or three barrels to the acre! a quantity which really does not pay for interest and the expense of culture. Why this is so, it is not our purpose to say; but it may in part arise from the fact, that men indulge in the ambition of having it said that their corn fields are *larger* than their neighbors, when they should be animated by that nobler ambition, of having their land in a higher state of fertility. To gratify the latter desire is within the power of most men, who sedulously set themselves to work to accumulate the raw materials to be converted into manure; for on every marsh, in every woods, and on each shore, are to be found the elements which, by admixture with ashes, potash or white ash, will make good manure. A few bushels of the first, or a few lbs. of the two latter minerals will be sufficient to transform as many cart loads of the marsh mud and other substances into manure as will fertilize an acre of land. And where neither of the above mineral substances may be at hand, one load of stable or barn-yard manure will leaven up two loads of mud, or muck, or other crude substances, and convert them into good manure in a few weeks, by mixing the two different matters together.

There are numerous other substances to be found on almost every farm, which by being compounded with the contents of barn and stable yards, can also be made into good manure; however, as we have so often pointed them out, we will not here recapitulate them, but leave it to the observing farmer to do so himself.

Preparation of the ground. — Deep and careful ploughing is just as essential to the successful growth of corn, as good soil; so luxuriant a plant, must be provided with ample pasturage for the spread and descent of its lateral and tap roots; the greater the degree of ease, and the fewer the obstructions, which it meets with, the more vigorous and healthful will be its onward course; provided you supply it also with proper food in sufficient quantities. Its appetite being keen, and its physical wants great, these must be consulted, or its product will be curtailed of much of its fair proportions. Consulting the wants of the corn plant, we deem it important, that the land should be, as we have stated above, ploughed deep, and thoroughly pulverized by the harrow and roller. Give to it a deep and fine bed, well supplied with strong manures, keep the land cleanly worked afterwards, and unless the season be very inauspicious, your labors cannot fail to be crowned with a large crop of corn; for when well treated, it generously returns all favors bestowed.

Distance of rows.—Corn planted 4 by 3 feet, we think is about the right distance to ensure a large crop. Two and three stalks in a hill—but this distance and thickness can only be sustained under circumstances of good soil and plentiful supplies of proper food. In thin lands, unless highly manured, not more than one stalk should be left in a hill. The furrows should run north and south.

Number of grains in a hill.—From 4 to 6 grains of corn should be dropped in each hill; the plants to be thinned out at the first working to 2 or 3, the strongest being selected to remain, position of the plant to be regarded in such selections.

Preparation of the seed.–1. Make a soak by dissolving 1 pint of common tar, or 1 pint of gas-house tar, in three gallons of boiling water, stir until the whole of the tar is dissolved, then put a bushel of corn into the vessel with the soak. If the soak does not

cover the corn, add more water. Soak the corn one day, then drain off the liquid, and add a sufficiency of ashes or ashes and plaster to coat the grains of corn. As this is being put in, the corn must be stirred so that all the grains may receive a coating of the ashes or ashes and plaster. As soon as this is done, the seed corn will be fit to plant—more corn should not, however, be taken to the field than can be planted during each day, and all except what may be in the hands of the droppers should be kept covered from the weather. The liquid drained off will answer for a second or third soak.

2. Dissolve 1 lb. of *Saltpetre* in 4 gallons of boiling water. In this soak a bushel of seed corn for one day, then drain off the solution, and stir plaster and ashes with the seed until the grains shall be covered.

3. Dissolve 2 lbs. copperas in ten gallons of hot water, soak a bushel of corn therein one day, then drain off the solution from the corn, and stir in half a gallon of soft soap; when the grains are thoroughly soaped, add as much plaster or ashes, or both mixed, as will separate the grains of corn and render them easy to be dropped.

4. Dissolve 2 lbs. of glauber or epsom salts, in 10 gallons of hot water, soak a bushel of corn therein as above, drain and treat as before advised.

Either of the above solutions after being drained off, will serve to be used a second or third time.

Quantity of seed per acre.—The calculation is, that a peck of corn will plant an acre of land.

Quantity of manure per acre.—Twenty double horse cart loads of manure will dress an acre of land. It should be spread broadcast over the land, and ploughed in as deep as the team can place it. If convenient, the corn would be greatly benefitted by putting a pint or half pint of compost into each hill over the corn, made thus: 7 parts wood mould or other rich mould and 1 part ashes and plaster, to be well mixed together. 400 lbs. of guano, and 1 bushel of plaster, will ensure a good crop of corn, so will 200 lbs. guano and 8 bushels of bone earth, or 20 bushels of bone earth, 10 bushels of ashes and 1 bushel of plaster. Each to be ploughed in.

After culture.—We do not wish to be considered as oracular in anything we may say under this head; our self respect, and our respect for the opinions of older and abler heads than our own, induce us merely to throw out a few *hints*, for the consideration of new beginners; the old corn planters will pursue the even tenor of their way, without caring an iota for our views, though we sent them forth in the formidable shape of rules not to be departed from. The advice we shall give, is what we practiced ourself and found fruitful of good results; but as opinion is but opinion, whether based on practice or deduced from theory, we certainly shall not get testy and quarrel with any one for differing with us. For the benefit of young corn growers, we will give our own practice, and leave it to all and every one, to follow it or not, just as it may suit their good pleasure. As soon as the corn plants came up and were of sufficient height to bear working, we turned a furrow from either side of the plants, returning it the same or next day, as suited our convenience, making hoemen follow the plough to work immediately around the plants. At this working, we gave to each hill of corn a small portion of a compost formed of 5 parts ashes and 1 part plaster, taking care to have it sprinkled on the corn hill around the plants. In a few days from this, we put the cultivators into the corn field, making them run as near as possible to the plants. The plants themselves were worked by hoe and hand. These operations were repeated as often as necessary throughout the season; the frequency of the workings being regulated by the condition of the corn and the ground, our object being to keep the one clear of weeds, and the other open to the influence of the weather. It will be seen, that we never used the plough but once after the corn came up; and that, confining ourself to the cultivator, no hilling was attempted. We abstained from the use of the plough for several reasons; among the rest, because, we believed it to be injurious to cut and lacerate the lateral roots of the corn plants, as they were their chief, if not sole *feeders*; because, we thought it would tend to waste the fertilizing matters of the manure every time it was ploughed up; and because we believed that the cultivator could keep the soil sufficiently open for all healthful purposes of vegetation, and did not believe it necessary to hill the corn. Our corn was, therefore, cultivated flat, and none or very little waste of manure permitted to go on; but on the contrary, husbanded for the use of the plants. In times of *drought* we kept the cultivators busy, believing that an open surface was much better adapted to drink in the dews, and condense the enriching gasses of the air, than would have been a hard and unbroken one.

In connection with this subject, we will remark, that *lime* and *marl* can be very advantageously applied at the time of harrowing the corn ground. There is probably, no better period for their use. As to the quantities to be applied, that must depend upon the character and condition of the soil, and upon this point we refer our readers to our last month's remarks.

Corn, when planted upon *grass-swards* or *clover-leys*, is much infested with grub and cut-worms; our remedy for that was, the sowing of 2 bushels of salt broadcast to the acre, so soon as the corn plants came up.

Spring wheat.—Although we are not the advocate for the culture of spring wheat in any State where winter wheat can be successfully grown, still we consider it to be our duty to remind our readers, that the earlier it is gotten in this month the better.

Meadows.—If your meadows be tight bound, and consequently unproductive, you may greatly improve the yield from them, by sowing early this month thereon, 2 bushels of ashes and 1 gallon of timothy seed per acre, and then running the harrow over them, so as to slightly bury the ashes and seed, and open the soil to the influences of the atmosphere. By this simple and inexpensive process, we think you may increase the productive capacities of your meadows, fully twenty five per cent; and if you will add two bushels of bone earth to the quantity of ashes named per acre, much more.

Fences.—If you have not previously done so, examine your fences carefully, and have all necessary repairs done, without delay.

Bushes, brambles and briars.—If the lines of your fences are infested with these unsightly and troublesome annoyances, have them cut up root and branch, so that they may no longer remain to prejudice you in the minds of travellers.

Hemp and Flax.—It will soon be time to put these crops in the ground, and we need hardly add, that they each require a deep rich soil, which should be well ploughed and reduced to fine tilth; several harrowings at different intervals will be found advantageous.

Tobacco plants.—If these appear feeble, put a bushel of horse dung into a hogshead, tie up a pound of the flour of sulphur and 1 gallon of soot in a bag, place the bag on the top of the horse dung, and fill the hogshead with water. Let the whole stand a few days, and water the plants with the decoction. The hogshead may be filled up two or three times, so as to allow of repeated waterings.

For the particular management of the plants of this great staple, as well as for the entire management of the crop, we take pleasure in again referring the reader to the admirable essays of Messrs. *Bowie, Jones,* and *Milburn,* to be found in the *December, January* and *February* numbers of the current volume.

Working Horses, Mules and Oxen.—As the time has arrived when these noble creatures have to work from early dawn till night, it is but proper that they should receive full feed and additional care. If you leave this to be done by others, without your supervision, the chances are, that your working beasts will not receive *all* that your generosity allows them, but that a portion may find its way into some neighboring grog shop. In this matter we speak from the experience of years.

Milch Cows and other Stock.—See that all your stock are well fed and attended to; not forgetting the cows and the ewes that have brought forth their young, the mare in foal, the in-calf cows and heifers, the ewes in lamb, the weathers, the store hogs and the young and old of every description and kind. Let their diet be generous, their sleeping apartments dry, warm and cleanly, see that they have water thrice a day, and receive proper allowances of salt, lime and ashes, not forgetting that the hogs require charcoal and rotten wood.

Out-houses.—If not previously done, have them cleaned and whitewashed.

In concluding our monthly *memoranda,* we but obey the aspirations of our heart, when we tender you the hope, that your labors may prove fruitful, not only of the products of the fields, but of that happiness of the mind, which is the offspring of a consciousness of having borne yourselves so as to deserve the smiles of providence. Worldly prosperity when thus earned, besides the comforts it may vouchsafe, carries with it consolations and enjoyments which are beyond all earthly appreciation, and unfolds to the well attuned bosom sources of felicity, which none but those who may thus have them, can realise or set a just estimate upon. Richer, far richer are they than "much fine gold."

WORK IN THE GARDEN.

Should you desire to see your garden an object of just pride to your wife and daughters—should you wish to see it abounding in all those vegetable necessaries and luxuries, which make up so much of the comforts and enjoyments of home, and which add so much to its hospitalities, you must exert your every energy this month. Do not indulge in that erroneous notion, which leads so many into the belief that they have not time to provide a well filled and appointed garden, as you may rest assured, that such a garden is more fruitful of profit than five times the quantity of land occupied in field culture, to say nothing of the convenience resulting to the domestic arrangements of the household, in having *ready at hand,* full supplies of vegetables for the table. But independent of these considerations, there are others, which should operate with equal force in deciding the question; it is indispensable to health that vegetable should be freely mixed with animal food, and that to encourage a free use of the former, variety and choice kinds, should be presented to tempt the appetite to indulgence.

With these preliminary remarks, we shall ask you to walk with us into your garden, to see what seeds should be now sown, what plants transplanted, and what else may be needed, to complete those arrangements necessary to make it worthy of the imitation of your neighbors.

Cauliflowers.—If your cauliflower plants are of sufficient size, you may set them out early this month. In preparing the ground for them, be sure to give the bed you allot for their growth a full dressing of manure, dig it in deeply, and rake thoroughly every few feet, so as to have the soil in fine tilth; your ground thus prepared, set out your plants about the same distance as cabbage plants are usually placed.

If you have no plants to set out and desire to grow some cauliflowers, select a spot of loamy soil, on a warm border facing the south, manure it with stable dung, say about two or three inches deep, and dig that in at least a spade deep, rake as you go so as to pulverize the soil, then spread thereon about an inch in depth of well rotted manure, rake that in freely, then sow your cauliflower seed, rake them in lightly and pat the earth with the back of your spade. Should the weather prove dry, water so as never to let the plants suffer from drought. This attention to watering must be attended to in their after culture, as there are but few vegetables so liable to injury from drought as is the cauliflower. Occasional waterings of soap-suds improve their growth wonderfully, so will soot-tea, made in the proportion of one gallon of soot to ten gallons of water.

Setting out Cabbage Plants.—If you have been provident enough to provide yourself with cabbage plants, set them out early this month. In the first place, select a suitable bed of deep loam, manure it heavily, dig it up nicely to the full depth of the spade, being careful to rake it well as the spring progresses. Then set out your plants about 2 feet each way, keep them clean, and water in dry seasons, and you cannot fail to have an early supply of collards and well headed cabbages.

Sowing Cabbage Seed.—If you have no early plants, prepare a bed as we have advised for cauliflowers, and sow two or three kinds of early cabbage seed; water the plants in dry weather and they will be fit to transplant in five or six weeks. The earlier the better you attend to this; if possible, get your seed sowed the first week in this month.

Peas.—Drill in a few rows of peas the first of this week, and continue to do so at intervals of a week throughout the month.

Brussels Sprouts.—Prepare a bed of good loamy soil, by manuring heavily, dig in the manure a spade deep, rake well, then broadcast pretty liberally with a compost formed of 7 parts rotten manure and 1 part ashes, rake that in pretty thoroughly; then sow your seeds, rake in lightly, and roll or pat the bed with the back of a shovel or spade,—and in two months you will have a plentiful supply of mos delicious sprouts or greens either for table or market.

Broccoli.—Prepare a bed as recommended for Cauliflowers and sow Broccoli seed.

Beans.—Plant beans, of kinds, during this month. If their planting be timed at intervals of a week, during this and the ensuing month, a continuous supply may be secured throughout the season.

Radishes.—Sow Radish seed every few days during the month.

Lettuce.—The same advice as given for Radishes will answer for Lettuce.

Small Salading.—Sow the seeds of all kinds of small salading early this month, and continue to do so throughout the month at intervals of a few days.

Spinach.—No one should consider his garden complete without having a compartment devoted to the culture of this excellent vegetable. Its effects upon the system are cooling, refreshing and gently aperient, while its flavor and taste is generally approved; and what is still a feather in its cap, if we may so express ourself, is the fact, it may be eaten by persons in sickness, while most other vegetables are prohibited. The neatest way of growing it, is to cultivate it in drills, about half an inch in depth, 9 inches apart. The seed should be sown thin; and when the plants are a few inches high, they are to be thinned out so as to stand about 6 inches asunder. They must be kept clean with the hoe and hand. Sow early this month, in a bed well manured and well prepared.

Strawberry beds.—If your strawberry beds have not already been attended to, forthwith have them neatly cleaned of weeds and runners; manure between the rows with well rotted manure, which should be slightly dug in, when the ground should be raked, and have a covering of long straw placed over it, for the triple purpose of keeping down the growth of weeds, maintaining moisture in the soil, and preserving the fruit from grit. While your vines are in blossom, have a care that they do not suffer from drought. To prevent this, it will be well in dry weather to water them pretty freely about three times a week. If you desire fine large berries, add a gallon of soot to thirty gallons of water, and water them with the decoction, taking care always to hold the nozzle of the watering pot sufficiently low to avoid touching the flowers. The best way to prepare this decoction of soot, is to tie the soot up in a bag. In this way you may fill the barrel containing the soot up a second time.

Asparagus beds.—If you have not done so already, give your asparagus beds a top dressing of manure, which should be forked in, then strew salt over the bed, so as to whiten the entire surface. Salt is one of those ingredients on which this root delights to feed, and is never applied without resulting benefits.

Gooseberries—Currants.—Either the bushes or cuttings of these may now be set out; the sooner the better.

Egg-plants.—The seeds of this vegetable for a *late* crop, should be sown very early this month. Select a spot on a warm border, manure it liberally, dig it deep, rake finely, and sow the seed thinly, rake them in lightly and pat the earth with the back of your spade. When the plants come up, should the weather prove dry, water every second or third day. In six or seven weeks the plants will be ready for transplantation.

Setting out Tomatoes.—If you have plants set them out the first good season after the weather shall have become settled, the sooner the better: plant them three feet each way, in ground that has been heavily manured and well worked, both as regards ploughing and harrowing. After your plants become well set, dust them freely with ashes and plaster, equal quantity of each. If the weather should prove dry, water the plants every other day; and in cultivating them be sure to keep down the growth of everything like weeds and grass, until the vines begin to bloom, when they must be left undisturbed to fruit.

Sowing Tomato Seeds.—In the first week of this month, select a good piece of loam on a border facing the south, and sow tomatoes seed for a late crop. Manure and prepare the ground well, and treat the plants as advised for cauliflowers. Should the plants assume a sickly hue, treat them to a decoction made thus: put a half bushel of horse dung into a barrel, fill that nearly up with water, then put a pound of sulphur and half a gallon of soot into a bag, sink that in the barrel, and after letting it stand a day, water the tomatoes plants with the liquor; this barrel will bear being filled up two or three times.

As you set out your plants, immerse the roots and stems into a mixture made into the consistency of cream, out of two parts soot and one part flour of sulphur. This will not only ensure healthful action to the growth of the plants, but secure them against the attacks of the cut and grub worms, which so frequently undo in a night what man has done the previous day.

Whilst on this subject we would here introduce some remarks on the culture of the Tomato, received from a correspondent at Abingdon, Harford Co. Md.

"In the culture of this vegetable, great advantage may be gained in point of earliness, by sowing a few seed in a pretty large flower pot in the house, at least one month before the usual time of making hot-beds. After the hot bed is finished the pot may be sunk in the earth where it can remain until the plants are large enough to transplant. When they are four or five inches high tomatoes may be forced very freely. Indeed my own experience convinces me that the best treatment for them is to drench them and scorch them by turns, for if there is a salamander among vegetables, it is I think, the tomato. When young however, they are tender, and bear neither heat nor cold very patiently. If plants are sown in the house during winter they should therefore be well taken care of until the hot-bed is ready to receive them, when they will do well enough. I have some at this time (March 1st,) that have put forth the rough leaves and are doing remarkably well."

Carrots, Parsnips, Beets.—Drill in some rows of each of these roots at the beginning of this month for early use—your main crops for winter consumption had better be delyed until the beginning of next month.

Celery.—Prepare a bed and sow celery seed. Select a good rich loamy spot, manure it liberally and dig and rake it well; then sow the seed, rake them in lightly and pat down the earth with the back of a spade or shovel. Treat the bed to frequent waterings both before and after the plants come up. It is important to the germination of the seed that the ground be kept moderately moist.

Sowing Onions.—If you did not sow onion seed last month, do so the beginning of this. Select a mellow loamy bed, cover it about two inches deep with well rotted manure, dig it in a spade deep, rake finely as the work progresses. This done, lay off your bed, into beds 4 feet with alleys 1 foot wide

between them, make drills ½ inch deep, sow your seed and cover with the rake. Should the weather be dry, water the bed to force the germination of the seed, so also in times of drought, water the plants during their growth, and you will not fail to have mild, well sized onions.

Leeks.—The seeds of this vegetable should be sown early this month.

Seed Onions should be set out early this month.

Garlic, Shallots and Chives.—These should be planted in the beginning of this month, the earlier the better.

Sage and Thyme may be planted out or the seed sown in the beginning of this month.

Early Turnips.—Prepare a bed by manuring it with well rotted manure, dig it in a spade deep, rake as the work proceeds, that done, top dress with a compost formed of 6 parts rotten manure and 2 parts ashes, rake that well in, then sow Early Dutch, Early Stone or Early Queen turnip seed, rake it lightly in and press down the ground with the back of a shovel. When the plants first come up, sprinkle fish oil over them and dust them with plaster every morning until they get into the rough leaf, and you may calculate upon a good bed of early turnips Should the plants stand too thick, thin them out so as to stand 6 inches apart, and give them two or three workings with the hoe.

Salsafy or Vegetable Oyster.—Prepare a bed by manuring, digging and raking, and sow a few rows of this excellent root.

Parsley.—Sow the seed of this pot-herb early this month.

Rhubarb or Pie-plant.—You may either set out the plants of this vegetable or sow the seed during the first ten days of this month.

Horse Radish.—In the beginning of this month set out a bed of this excellent condiment.

Artichokes.—Make new plantations early this month.

Potatoes.—Early this month plant a bed of this excellent root.

Ockra.—Sow the seed of this vegetable between the 1st and 15th of the month.

Red Peppers.—About the 20th of this month sow your pepper seed.

Cucumbers and Squashes may be planted the last week in this month in the open ground.

Raspberries.—New transplantations of raspberries should be made early this month.

Garden Fruits.—Any pruning necessary may be performed in the beginning of this month.

Grapes.—Cuttings may be still planted, so also may grape vine roots be planted out, provided both the one or the other be done in the beginning of the month. The best manure for grape vines would be a compost formed of 4 parts mould, 2 parts ashes and 5 parts bone shavings or bone earth, to be thoroughly mixed together.

Evergreens may be taken up and transplanted during the first week in this month, they must be well supplied with water during the season.

Shrubbery, of all kinds may be transplanted during the first ten days of this month. Care must be observed in watering them in periods of drought until they are completely set and commence growing with strength.

Seed Beans, of all kinds, should be often watered, let the waterings be moderate.

Pot Herbs, Medicinal Herbs, of all kinds, may be planted out, or the seed sown, any time between the 1st and 15th of the month.

With the preceding directions we commit the care of the farmers' gardens to the hands of their excellent *helpmates*, knowing full well that all that can be achieved by well directed energies will be accomplished by them; for it is not in the nature of woman to neglect anything in which the comforts of the family may be concerned.

SHELL BANKS—THEIR VALUE.

A correspondent in Nansimond County, Va., in forwarding us a list of subscribers from his neighborhood, amongst other things, remarks:—

My land has been heavily marled, and is now in good heart. I have also immense deposits of Indian shell banks, more than I could haul out with my regular farm force, at leisure times, in fifty years. There is much speculation with regard to the shell banks; some think that they were thrown up by some convulsion of nature; others, and I am one of these, that they were placed there by the Aborigines; and to corroborate this, I have found human skeletons at the depth of four feet, though they were all small, showing that they must have been a small race, or buried their adults in another place, which I have never yet found. Again, the oyster shells are all small, such as you could suppose might be picked up from the flats at low tide; also, arrow heads, pieces of Indian pottery, stones ground down to a point, for skinning deer, &c., with; but on the other hand, it appears that it would have required ages, for such an accumulation as there is on my farm alone, to say nothing of those on many others, on these tumuli, where the shells and black dirt (which dirt is as black as ink,) are four feet deep, (and how much deeper I cannot say, as I have never dug below four feet;) corn, wheat, oats, clover, &c., grow finely, but unless we are very cautious in applying it to other lands, it will burn every thing up, and this deters many from using it. Duplin Island, the former residence of the king of the Nanzemum tribe of Indians, which Capt. Smythe speaks of in his account of the settlement of Virginia, is on the north side of the Nansemond river, and immediately opposite to my farm; I think this another argument that the shells were deposited by the Aborigines; they would probably cross over to the main land to hunt, &c., and would there pick up and open the oysters so as not to be troubled with the shells in their canoes, thereby causing so much extra weight to be transported to the island,—perverted into the homely term of *Dumplin*, and is now known throughout this whole section of country by that name. D. H. H.

Our correspondent's opinion is coincident with that of most writers upon the subject, as to the cause of the formation of those oyster-shell deposits. We should think, if the land be poor to which his shell marl is to be applied, that from fifty to sixty bushels to an acre, would be an ample dose at one application; a like quantity to be applied after the land had been in clover, which all limed lands should be as soon after the application of the mineral as possible.

The deposits of shell marl on our correspondent's estate, give to it a greatly increased value; for in them he possesses the elements of their fertilization.

AMERICAN FARMER

BALTIMORE, APRIL, 1, 1850.

TERMS OF THE AMERICAN FARMER.

$1 per annum, in advance; 6 copies for $5; 12 copies for $10; 30 copies for $20.

ADVERTISEMENTS inserted at $1 per square of 12 lines, for each insertion. In case of the continuance of an advertisement for six months or longer, a liberal deduction will be made. Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

Maryland State Agricultural Society.

The next Quarterly Meeting of the Board of Managers will be held on WEDNESDAY, the 1st day of MAY next, at 10 o'clock, at the Hall of the Society, in the city of Baltimore, 128 Baltimore street, in the American buildings. As the Premium list will be made out for the next Exhibition, and other matters of interest requiring attention, be laid before the Board, it is expected that a general attendance may be had.

By order, SAMUEL SANDS, Secretary.

PRIZE ESSAY ON FARM BUILDINGS.—The essay on this subject, which graces our pages for this month, will be read with deep interest. Its perspicuity of description, and minuteness of detail, upon the construction of farm buildings and the general economy and management of the farm yard, are such as must commend it to every seeker of knowledge upon the concerns of husbandry. To its author, Mr. *Wilkinson*, the principal of the Germantown Agricultural Institute, has been awarded the splendid piece of silver plate, valued at $50, which was offered by the proprietor of this journal. The *award* of this trophy is the more valuable, and we are sure will be so appreciated by the successful competitor, as it goes forth endorsed by the ripe judgments of two such practical and enlightened farmers as Senators *Cary* and *Natlie*.

By the following note from the committee, it will be seen that the other essays are of great merit, and we intend to lay several of them before our readers, at as early a day as our arrangements will permit.

SAMUEL SANDS, Esq.—Dear Sir:

The committee appointed to award the liberal premium offered by you for the best essay on Farm Buildings, have had much difficulty in performing the duty assigned them. Owing to the failure of the committee to convene at the time appointed, their action was necessarily postponed to a much later period. The delay thus occasioned, is to be regretted on account of the suspense unavoidably inflicted on the talented and deserving competitors for the premium.

The committee have endeavored to perform the important duty imposed upon them conscientiously and impartially. Looking, however, to the very great and evident merit of the various productions submitted to their inspection, they cannot but fear, that the justice of their award may be doubted by many. On this account, they feel themselves satisfied in congratulating you and your readers on the great amount of valuable information elicited by your commendable and public spirited design. They are satisfied that the different essays submitted to their judgment, the perusal of which has afforded them much gratification, contain an amount of information both practical and theoretical, sufficient for the necessities of the agricultural community for some years to come.

They trust that your future efforts in behalf of that community may be quite as successful as the present, not doubting that you will continue to be actuated by the same spirit by which you have been so far distinguished.

With great respect,
your ob't servt's,
WILSON M. CARY,
D. W. NATLIE.

THE COW PEA.—The Cow Pea has been long considered as one of the most valuable means of keeping up the fertility of lands in the South. In conversation, some months since, with WM. DODGE, Esq., of Washington County, (one of the most public spirited farmers of Maryland,) he informed us that he had been making experiments with the Cow Pea, and promised to furnish us with the results;—and having since received applications for information upon the subject, in reply to our request for the redemption of his promise, he has forwarded the very satisfactory paper which will be found in the present number of the Farmer. The demand for guano, last year, was very great, but there is a deficiency in the supply, and consequently the price has advanced,—therefore farmers must look about them for other sources to carry on their improvements, as they cannot afford to run the risk of its use, at a cost greater than what they have been paying during the past year. Green crops, bone dust, poudrette, lime, and other fertilizers, must therefore be relied upon to a great extent; as also composts with small quantities of guano, or the articles just enumerated combined therewith. Guano is a monopoly, and the price can be regulated by a foreign company, and kept at a rate which it should not command:—therefore every effort must be made to supercede its use by other means of improvement, and it is worthy the attention of our farmers to test the value of the cow pea, as recommended by Mr. Dodge, along with other means for the renovation of their lands. Will some of our friends in the South, give us more information upon the subject?

EDITORIAL CONVENTION.—It having been determined to hold an adjourned meeting of the editorial convention, and the city of Baltimore designated as the place therefor, the members of the fraternity are respectfully invited to attend at the appointed time, the 15th of April inst., at the Hall of the Maryland State Agricultural Society, in the *American building*, 128 Baltimore street.

GUANO AND ITS PRICE.

Of the efficacy of guano, in restoring worn-out lands to productiveness—of its capacity to increase the yield of any lands in a sound condition—there cannot be a doubt; but, even with all its regenerating properties, we do think that its market value is too high. *Forty-eight dollars* for a ton of 2,000 lbs. of Peruvian guano is more than it is intrinsically worth, and, should it be continued thus high, must, we should think, limit its use, for the obvious reason, that farmers cannot afford to pay a price for it which is so disproportionate to its real value. The importers of the article must see that the present high price cannot be maintained much longer; and we doubt if the cost of importation justifies any such exorbitant rate.

We have, as opportunity offered, urged upon those with whom we have conversed upon the subject to write to our senators and representatives in Congress, upon the necessity of urging the Government to take such steps as will tend, if possible, to throw open the trade in guano to the merchants of our country. But our friends in Montgomery, ever forward in good works in which the agriculturists are concerned, have determined to go to headquarters at once, as will be seen by the annexed proceedings. We have had the privilege of reading the communication of the committee appointed on the subject, and addressed to the President of the U. States, and have no doubt, from the able and powerful appeal made in behalf of the agricultural interest, and the well known solicitude felt by his Excellency in every thing connected with this interest, that it will meet with a cordial response. We hope that the suggestions made to other societies will not be overlooked. The multiplicity of affairs which require attention at the hands of the executive officers, renders it necessary that the subject should be continually agitated until the object is accomplished.

MONTGOMERY CO. AGRICULTURAL SOCIETY.—The regular Quarterly Meeting of the Montgomery Co. Agricultural Society was held in the office of the Register of Wills, on Thursday Evening, March 7, 1850.

A. B. Davis, Esq., President of the Society, in the chair, Dr. C. A. Harding acting Secretary.

The President laid before the Society a very interesting statement of his agency in attempting to procure guano for the members of the Society, together with much valuable information as to the present and prospective state of the market for that article, together with the first cost of the article at the places where obtained, and the actual cost and expense of its importation. Whereupon, the Rev. Charles H. Nourse submitted the following resolution, which was unanimously adopted:

Resolved, That a committee of seven, of whom the President of the Society shall be chairman, be appointed, whose duty it shall be to invite the attention of the Executive Department of the Government of the United States to the importance of the guano trade to the agricultural interest of the Union, its extent and present condition, and of the necessity and propriety of the employment, by the Government of the United States, of all the means within its power, of lessening the cost of the article to the citizens of the United States, at the places whence obtained, and of facilitating its introduction into the country; and to invite the co-operation of the State and County Agricultural Societies and Clubs in this application. Whereupon, the following gentlemen were appointed said committee, viz: Rev. Charles H. Nourse, Wm. H. Farquhar, Benj. S. White, F. C. Clopper, Joseph H. Bradley, Hon. R. J. Bowie.

James W. Anderson, Esq., offered the following resolution, which was read and unanimously adopted:

Resolved, That, in the opinion of this meeting, the advanced price of guano, occasioned by the operation of the dealers in the article, will put it out of the power of the agriculturists of our county to use it profitably at those prices, and that they will therefore decline purchasing it at the present rates.

On motion of Otho Magruder, Esq., the thanks of the Society were unanimously tendered to the President of the Society for his efforts to procure guano for the members of the Society, and for the very interesting and valuable information which he has collected and communicated in reference to the article, and thereupon the Society adjourned.

A. B. DAVIS, President.

C. A. HARDING, Sec'y pro tem.

A CATALOGUE of *Agricultural Implements, Machinery, Seeds*, Flower Roots, Trees, Shrubs, and Plants, Farming and Garden Tools, &c., has just been printed at this office for Messrs. R. SINCLAIR, JR. & Co., of this City. It comprises 100 pages 8vo. and describes the various implements manufactured and sold at their establishment, (which is one of the most extensive in the U. S.) with engravings thereof, together with the prices of each variety, size, &c., and other particulars to give a correct view of their utility to the farmer and planter. Also a list of Farm, Flower and Garden seeds, time of sowing, prices, &c., and a large collection of Practical Recipes, selected with much care, embracing almost every thing useful to the housekeeper and farmer, together with some valuable hints relative to the rearing of fruit and other trees. Every farmer and planter should have one of these catalogues at hand, and Messrs. Sinclair & Co. will forward a copy to any order, (post paid) for the same.

A friend at Piscataway, Prince George's, Md., in remitting the subscription for several of his neighbors, who were induced last year to subscribe for the Farmer from his recommendation, remarks of one of them, that he forwards his subscription for 1850 and 51—"he says that he sometimes considers a single number worth the subscription, or rather that he would not lose a single number for the subscription money;" this is pretty generally the tenor of the remark which is made when a number happens to miscarry. Our friend in speaking of Dr. Higgins' report, says:

"I consider it a paper of great value to the agricultural community. Mr. Jefferson once said in a letter to a friend, "that the common herd of philosophers seem to write for each other;" this is too frequently the case, and Dr. Higgins has avoided the same. It is adapted to the common sense of the community, and may be read and understood by al-

most every farmer in the State. I consider the expense no objection, for it is the most judicious and useful appropriation of public money that has ever been made by our State for the benefit of the agricultural interest, and I anticipate much good from it."

THE "FARMER" IN VIRGINIA.—The following from a subscriber at Orange Springs, Virginia, who remits the cash for his own and a new subscription, we give as a specimen of the approbation of our patrons. Every day's mail brings us similar tokens of the estimation in which our work is held in the "Old Dominion," and the increase of our subscription list has been unprecedented since the commencement of the present volume :—

"DEAR SIR:—I take no paper for which I pay so cheerfully, as for the 'American Farmer.' Other Agricultural papers, there may be, more learned and thoretic, but not one has fallen under my inspection, so replete with the very information needed by farming classes. I have been a reader of an Agricultural periodical, costing five dollars, but at the same price I should greatly prefer the 'Farmer.' It has science and theory enough, and in addition, facts and statements, which form the data from which our sturdy farmers are enabled to draw practical conclusions. You have been singularly fortunate in securing the aid of intelligent and practical correspondents. Men who are acquainted with the difficulties attendant upon farming, and who know the wants of the Agricultural community. The monthly receipt of your paper, affords as rich and as profitable a treat as a monthly visit to an Agricultural club. In both instances we have access to the knowledge and experience of intelligent and practical farmers. Under the influence of such documents, as are contained the 'Farmer,' the products of Agriculture are greatly increasing. May your subscription list be increased in a like ratio!"

ACKNOWLEDGEMENTS.—We are indebted to our young friend Mr. *Wm. B. Dobbin*, of Howard District, for several prints of delicious Butter, the product of his dairy.

From E. J. Stevens, Esq. of Talbot, a bundle of grafts of the Clifter Apple, so much admired at our last State Fair, and particularly noticed in the report of the committee on Fruits. We are distributing the same to our farmer friends.

We have received a copy of a pamphlet containing the report of the Committee of Supervision of the first exhibition of *Domestic Poultry*, held at Boston, in Nov. last. It embraces much interesting matter upon the subject of poultry, and a number of engravings of the most approved and rare kinds of fowls. We regret our inability, at this time, to copy largely from this and similar publications upon the important and too much neglected subject of which it treats; but, if we are spared another year, we hope to pay more attention to this, and another matter which he have much at heart, viz: the *culture of the grape*, and other fruits.

SEEDS.—From the Patent Office, we have received a package of seeds, which we will take pleasure in distributing among our friends who may desire to obtain them. They consist of the following: Perennial rye grass, mountain sweet water melon, prickly or winter spinage, mountain sprout water melon, extra early pea, prize melon, long Surrey carrot, Chinese tea seed, late purple broccoli, round spinage, white Silesian beet, water melon, sweet scented vernal grass, Prince Albert peas, radish, beet, horse bean, Prussian marrow peas, Carolina beans, scarlet running beans, East India cotton, Belgian carrot, red cranberry bean, Norfolk turnip, large purple egg plant, Osage orange, green nutmeg melon.

We have also received, from P. T. Tyson, Esq., a couple of the bulbs of the soap plant, brought from California, which we have placed in careful hands.

We are indebted to Allen W. Dodge, Esq., Secretary of Essex Co. Agricultural Society, of Massachusetts, for a volume of "*Transactions for* 1849," of that old and respectable association, which has just held its Thirtieth Anniversary. We find in this volume a mass of useful matter, from the most experienced farmers; and our regret is, that the limits of our journal do not permit us to transfer to our pages, many of the good things found in them "*Transactions.*" We hope at no distant day to reciprocate the favor, by furnishing our friend with a copy of the "Transactions" of the Maryland State Society.

To *B. P. Johnson, Esq.*, Secretary of the New York State Agricultural Society, we are indebted for a copy of the report of the Special Committee appointed by the Legislature of New York, on the establishment of an Agricultural College and Experimental Farm, in accordance with the recommendation of the Governor, and in compliance with the memorials and petitions of the Agricultural Societies, Boards of Supervisors, and private citizens. The report is accompanied with a bill for the establishment of the College and purchase of the Farm, and one hundred thousand dollars are appropriated for the purpose.

THE GROWING WHEAT CROP.—From a very observant and reliable correspondent we have received the following. The reply to our enquiries from farmers of our own State is generally of a similar tenor to that of our Delaware friend, as to the present appearance of the growing wheat:

DELAWARE, March 22, 1850.

To the Editor American Farmer.

As you have expressed a desire to keep the readers of your practical agricultural journal informed on the important and interesting subject of the state and condition of the crops, and desire early information from the different sections of country, I hasten to report that the wheat crop of Delaware has generally gone through the winter remarkably well. The fly affected the early sown, particularly on light land; but a late fall, and protected in the winter for a time, by a covering of snow, it looked again fresh and well—was a little set back by the cold of February, but very seasonable weather since has given it generally a promising appearance.

One word in reference to our wheat market. Have you noticed that nearly all the shipments of wheat from New York, the past winter, and much of the flour, has been "Canadian wheat" and "Canadian flour"? It has been allowed to take the place of our own. It would have been shut up by the St. Lawrence till next June, and the wheat and flour of our own farmers gone forward to supply the foreign demand, but for giving New York merchants a little more storage, commission and freight! Let our farmers look to it, and to their representatives in Con-

gress, that other interests do not have every thing all their own way. A Western gentleman, of experience and observation, told me this free admission of Canadian wheat—free for purposes of shipment—had affected the price of Western wheat at least 6 cents a bushel, and, of course, Southern wheat not less. Are there those in Congress who will look to our interest in this matter, as well as to giving us the Agricultural Bureau? A FARMER.

QUANTITY OF WHEAT IN THE WEST.—The Chicago Tribune says:—"It is now estimated by our best informed dealers, that in all the ports on the west shore of Lake Michigan, there is in store about eight hundred thousand bushels of wheat, against one million six hundred thousand bushels at the same time last year. It is further supposed that by the opening of navigation, the quantity will be increased to about one million two hundred thousand bushels, which is fully a million bushels short of the amount at that time last year."

The Ohio Cultivator, in publishing the above, remarks:—"Our readers will remember that we predicted last summer such a result as this, from the failure in Ohio and portions of Indiana. The effect we think must be an advance in prices of flour and wheat before next harvest."

The same journal, of the first of March, says:—"The wheat crop is less promising than a couple of weeks since; and some of our letters from the South part of the State, represent its appearance as quite unfavorable."

THE DIGNITY OF THE FARMERS' PROFESSION.—From an address delivered before the American Whig and Cliosophic Societies of the college of New Jersey, on the 24th June, 1849, by the Hon. *Jno. Thompson Mason*, of Washington Co. Md., we extract the following beautiful tribute to the Agricultural profession. The orator deprecates the practice so universally adopted, of preparing every youth who displays any signs of genius, for what are called the learned professions, and adds:

"It is a great error to suppose that there are no pursuits in life worthy of the high calling of a scholar and a student, other than the learned professions. Of necessity but a small portion of mankind can find profitable employment as professional men; and it certainly could never have been the design of the Great Author of the universe that nine-tenths or more of the human family should be endowed with intellectual faculties for no other purpose than that they should remain forever dormant, or discharge the functions of the brute. I am aware that there are some enemies of human rights, who assert and maintain an opposite doctrine, and who advocate the slavery and debasement of the human mind, as better suited to the laboring portion of society, or 'the hewers of wood and drawers of water.' Thanks be to the Giver of all good, that we live in a country in whose soil such doctrines can never find root, and in an age that will chill and blight the budding of such sentiments.

The mind of man can find something to employ it in every pursuit of life however humble; and every occupation can be elevated and more successfully followed by invoking the aid of the mental faculties. What pursuit affords a better field for the study of science, and for the general improvement of the mind, than an enlightened system of agriculture? Of all the occupations which can employ the attention of man, none affords greater facilities for the development of the noblest faculties of the mind and heart than agriculture. None is so free from temptations; none more honourable; none attended with more happiness; none better adapted to the cultivation of social pleasures, or of an affectionate and reciprocal interchange of sentiment and opinion; none so well fitted to elevate and expand our ideas of the Deity, or to promote a love for, and an obedience to his great laws!

"Give me, indulgent gods! with mind serene,
And guiltless heart, to range the sylvan scene;
No splendid poverty, no smiling care,
No well-bred hate, or servile grandeur there;
The pleasing objects useful thoughts suggest,
The sense is ravish'd and the soul is blest;
On every thorn delightful wisdom glows,
In every rill a sweet instruction flows."

Yet there are some who would consign this ennobling pursuit to serfs and vassals, and close up this bright avenue which leads to refinement and wisdom, against all but the most degraded of our species.

Agriculture and civilization have through all time advanced hand in hand, and have ever been inseparable companions; and when the former is suffered by a people to languish, it is a certain indication that they are in danger of relapsing into a state of barbarism, and that refinement, science and literature, and all the arts of peace, have attained their acme, and have begun and must thenceforward continue to recede. The condition of the nations of the earth at present attest the truth of these remarks, and they are equally applicable to the nations of antiquity. The ancient Romans in the days of their glory and power were so devoted to agriculture that their most illustrious commanders were sometimes called from the plough. Their refined and enlightened senators commonly resided in the country, and cultivated the ground with their own hands; and, among all clases of society, to be a good husbandman was accounted the highest praise. A noble Roman was overwhelmed with tears on being obliged to accept the consulship, because it would deprive him for one year of the opportunity of cultivating his fields.

Shakespeare, with as much truth as beauty, says in regard to a rational and rural solitude:

"Hath not old custom made this life more sweet
Than that of painted pomp? Are not these woods
More free from peril than the envious court?
And this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in every thing."

The mechanic arts, every one of them to a greater or less degree, are governed by scientific principles, and cannot be successfully pursued without a certain amount of mental cultivation. No limits can be assigned to the improvements which might be made in every art, were the lights of science and of education allowed to shine upon them; and that which is now but a process of dull and painful imitation, might, by the application of a cultivated mind, become a pleasing study, which would be constantly developing some new principle in science, and furnishing fresh food for the mind to feed upon. Hence I assume the position, that education is designed by providence as a means for the elevation of the entire human family, or of as many as can attain to it, and that its blessings and honors are not to be confined to a favored few."

RENOVATION OF LAND WITH THE COW PEA.

Stafford Hall, Washington Co. Md.,
February 13th, 1850.

To the Editor of the American Farmer:—

Dear Sir,—Your letter of the 11th January, requesting me to give you a statement of my experiments upon the subject of the Pea culture, was received. My apology for not replying to it sooner, is, that I was absent from home the greater part of the month of January, and latterly have overlooked the matter. A few days since I received yours of the 8th instant, repeating the request, and I now hasten to give you the desired information.

To begin, I must state that about three years since, I came into possession of a poor farm, of about two hundred and eighty-five acres, costing eight dollars per acre; the greater part of the soil is composed of what is usually called slate land, and of a *thin* quality. Also, one hundred and ten acres of it *had been* in cultivation, and was in a *worn-out* condition, at the time of purchase. Being anxious to improve the place, I commenced cleaning up the old fields, and in the early part of October, 1847, I had twelve acres sowed in wheat, upon which about two hundred pounds of Peruvian guano was sown to the acre, and shovelled in with the wheat;—the following spring I had leached ashes and plaster mixed in equal proportions, and one bushel sown to the acre:—the crop matured well, but made only one hundred and thirty-nine bushels of clean wheat. If the wheat had been sown earlier, and the weather had not been so dry and unfavorable in the spring, I have no doubt the crop would have been better. In the winter of 1848, I met with a Prince George's farmer, and during a conversation upon the subject of improving lands, he recommended to me the broadcast culture of the cow pea, with a view to plow them under in a green state. He had seen the crop grown in the South, where they are used by the planters to renovate their exhausted cotton fields. I immediately determined to try them, and procured two barrels of seed from the South. I had a field of five acres, which was thinly set in clover, and waited until the first week in June, in order to have the first crop of clover to turn under, which was *very thin*. On the 10th June, I had the peas sown broad-cast on the ground, as the plow had left it, and a roller passed over to press them in; this was all that was done. They came up in a short time, but did not grow much until the latter part of August, then they seemed to take a fresh start, and the ground was soon covered with the most luxuriant growth of vines I ever saw. About the 20th of September, they were in full bloom, with lateral branches running in every direction, and over two feet high. I then started a two horse plow to turn them under. This was a difficult job, and the plowman had to keep a harrow in the field to drag the vines down; it was rather tedious, but was well done. Knowing that the quantity of vegetable matter that would be turned under, would give to the soil, a vast deal of food for plants, yet the value of the pea vine being unknown to me from analysis, I presumed that there would still be a deficiency of some of the properties essential to the growth and maturation of wheat, I therefore concluded to make a combination of guano with the vine, and consequently had, as near as I could get at it, one hundred and ten pounds to the acre, of Peruvian guano sowed upon the vine, before it was turned under.

I must now state, that previous to turning under the pea vine, I had one acre added to the field. This acre was heavily manured with barn-yard manure, and the guano sowed over it, and the vine alike. The wheat, (Zimmerman,) was sown the 27th of September, harrowed in and rolled. In March I had about one bushel to the acre, ashes and plaster mixed half and half, sowed on the field. The wheat looked beautifully in the spring, and attracted a great deal of notice. Many for the result. The six acres yielded one hundred and thirty-four bushels of prime wheat, besides about three bushels of screenings, &c.; I sent about eighty bushels to Georgetown for seed, which averaged sixty-seven pounds to the bushel. I weighed a half bushel here, accurately, and it made full sixty pounds. I must observe here, that on one side of the field, there was timber land which shaded the ground a good deal, and in the field there was a gully about 40 yards long and 3 wide. Moreover the wheat was injured some by the fly, (the Zimmerman variety, on most farms, did not make more than half a crop,) and the season was unfavorable for the under growth to get up, particularly on slate land. When the crop was cut, it was perceptible to all, that the wheat, where the peas grew, was far superior to that on the manured acre;—was apparently better headed, taller in the straw, a growth more luxuriant;—indeed, at this time the stubble will convince any one, that there must have been a considerable difference in favor of the six acres. You will perceive from all this, that no correct idea of the real value of the pea can be formed. Yet from a comparison of the product of five acres, with the crop from the twelve acres the year previous, and the apparent superiority of the five acres, over the manured acre, I am satisfied that it is the best green manure in the world;—it will grow on the thinnest land, where it would be difficult to get a crop of clover to grow, and I am convinced that they are more fertilizing than clover.

I sowed a field of about ten acres, adjoining the six acre field, in peas, last June, and although the drought was very severe upon vegetation, yet the growth was good, and the vine had to be harrowed down to get them under. The wheat was sown about the 13th of October, and now bids fair to make as good a crop as the six acre field produced, in consequence of the growth of vine not being so great, I had about one hundred and sixty pounds of guano to the acre, sowed upon the vines before turning them under. I am now about to make the mixture of plaster and ashes to sow upon the wheat. The above, I think, is the best method of laying a foundation for the permanent improvement of worn-out land; after that, the wheat ground to be sowed *thick* with clover, and to remain two years if well set,—then follow with a proper quantity of lime upon the clover lay, applied in time to be on the surface at least one year,—then, if clear, blue grass, to be first farmed in wheat; after which to be manured heavily with barn-yard manure, and put in corn, then in wheat again and clover. If the land is foul, put in corn first, then in oats, the oat stubble manured for wheat and clover. I have an old field of about twenty acres fenced in last fall, and put in rye on the 10th of October, after sowing and harrowing in two tons of Kentish [illegible] I shall have, as soon as possible, ashes and plaster sown over the field. In 1847, I had about [illegible] acres of old meadow on same farm cleaned up, and in 1848, put in corn; I made about nine hun-

…h of corn from the field. When the corn was …ed, I had a handful of the following mixture …o each hill: one bushel Peruvian guano, one …l plaster, and four bushels rich woods earth, …ghly mixed, and the seed dropped in it.—…year I farmed the field after the same manner, …wing to the great drought, I only made about …hundred and seventy-five bushels corn. The …g spring I expect to have this field ploughed …last of May, and sowed with the cow pea, …ed in the summer, and put in wheat, with …in the fall. I have now complied with your …st, and indeed I find I have gone beyond it, in …g what I have been doing towards reclaiming …proving a *poor* farm.

…a requested me to send you a few peas in a …. I am sorry I cannot do this, as I have not one …e place. In 1848, I planted about one bushel …ilk, on this farm, for the purpose of making …but they did not mature well, and I only made …bushels of defective seed:—last year I tried …gain and got none, so that I have given up …ea of raising the seed in this climate, and shall …d upon getting them from the South. Several …rs around me have determined to try them if …an get the seed. One bushel to the acre is …roper quantity to sow. I noticed in the Janua…mber of that useful and well conducted paper, …Plough, Loom and Anvil," that a Maryland …er had sowed what he calls the black pea, in the …g with oats. He says,—"the pea did not at …ierbre with the oats, but took a start after the …was harvested, and made a fine growth." This …ew idea to me, and I have determined to sow …t ten acres in this way next spring on this …. The cow pea, however, is of a yellowish …, and the only kind I have had. I forgot to …tion above, that many persons have expressed …pinion that the six acre field could not have …ced, without the improvement put upon it, with …ld of wheat and season, more than from five …ht bushels per acre. And now, Mr. Editor, …conclude with the remark, that although I …made no experiment to test the *real value* of …ea vine as a manure, yet it has been proven …they will *grow* to perfection in our climate, and …be valuable. I hope some of the farmers in …wer counties will give them a trial, for there …doubt they would mature well, and we would …less difficulty in procuring seed.

Yours, respectfully,

W. DODGE.

…OW IS UPLAND RICE CULTIVATED.

…Bladen County, N. C., February 20th, 1850.

…. SIR:—As your valuable paper is intended as …dium through which the ignorant may avail …selves of the knowledge of the experienced …t subjects pertaining to agriculture, I wish to …myself through its columns, of some informa… upon the *culture of high-land rice*. I have re…y opened some bottom land which I wish to …down in rice the ensuing season. I think the …will produce well under proper culture, (though …bject to irrigation,) but being entirely igno… of the *modus operandi*, I am under the necessity …eking information through your paper.

…looking over some of the back numbers of the …er, I find in the August number, a letter of …r James Magoffin of Alabama, in which he …ought the culture of highland rice to singular …ession. If you are acquainted with his manner of cultivation, you will also please state it in your next number. Any remarks which you may make upon the subject, will be highly appreciated by

Yours, respectfully,

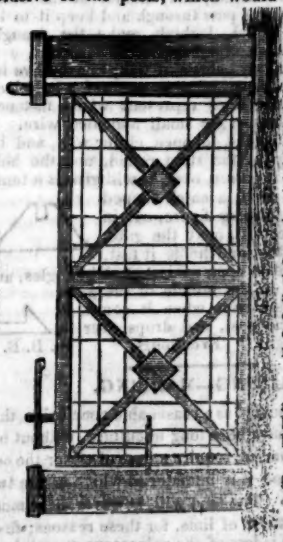
A SUBSCRIBER.

We would esteem it a very great favor if our highly esteemed friend, *Dr. Magoffin*, of St. Stephens, Alabama, would furnish us with a paper upon the best method of cultivating *Upland Rice*. Stating 1st, the best kind of soil on which to grow it. 2d. How to prepare the ground. 3d. How to cultivate it. 4th. Whether the Rice is of a different kind to that grown in wet lands. 5th. What the method of harvesting, cleaning and product, and whatsoever, also, that may throw light upon the subject.

WIRE GATE—OXEN vs. HORSES.

To the Editor of the American Farmer.

Among the various plans and contrivances for gates, appearing in your valuable paper, I see none I like better than that which I have adopted to secure the entrance to the enclosure around my dwelling, lawn, orchard, &c. It is not precisely an outside gate, but is subject to nearly all the same evil usage, and has thus far, so well withstood it, that I will probably apply it to the latter purpose, so soon as the present incumbent has shared the fate of its predecessors, and been crushed by its own weight and deformity. Its rival is light, handsome, and, as you will see by the drawing, of easy construction, and of little cost. I put mine at two dollars, exclusive of the posts, which would be the same in common gates, but as I do all the "contraptions" myself, such as drawing the wires, hanging, latches, &c. it might amount to three dollars. It is perfectly secure, even without the prohibitory influence it appears to possess over animal instinct; can be rendered ornamental if required; does not intercept the prospect, and may even be made invisible, in summery by painting it green.



WIRE GATE.

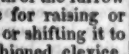
I read, with particular satisfaction, the excellent article on the use of Oxen, by Mr. E. Stabler, in your February number, in which he has my hearty concurrence. I would trespass on you for a column or two, on the same subject, if there were any addition to be made to his observations. If we could breed the drivers as easily as we can the steers, and

teach them humanity and consideration towards these invaluable animals, all objection to their use would be removed. As it is, mine perform all the really laborious hauling on my premises, and encounter weather, mud, ice, and water, while their favored co-laborers are in the stables, awaiting the return of spring, to resume the duties from which they have been reposing since autumn, torpid in all but their digestive faculties, though the oxen have never the yokes off their necks, except at night, and are subject, at the same time, in all but food and shelter, to the impositions too often laid on patient, enduring, uncomplaining, and unresisting merit.

Could I have them treated with the kindness and respect bestowed on my horses, and to be regarded as possessing almost equal intelligence and sensibility; and certainly superior usefulness for farming operations, I would look entirely to them for business purposes, and consider the nobler quadrupeds, as I do all other expensive luxuries, very well for those who can afford them.

We use our oxen, occasionally, for ploughing; and have no difficulty in regulating its depth, since the introduction of what is called here the lever plough; in which the depth and length of the furrow slice, is regulated by a contrivance for raising or depressing the beam at the casting, or shifting it to either side, instead of the old fashioned clevice. In this way, the line of draught is always preserved, and the horses, or oxen, and ploughman, are not working against each other, as they do on the old plan, when the plough is required to vary from the depth or breadth for which it is originally calculated. If I worked oxen frequently at the plough, I would have a ring to hook to, at the extremity of the beam, next the casting, and another at the other end for the chain to pass through and keep it to its place; which would, I think, make the draught easier and steadier.

The frame of my gate is of oak, two by five inches; the cross pieces of pine, one and a half inch square; the light lines represent wire, fastened where they intersect by small annealed wire. It is hung without irons, to open either way, and by making the top of the stem round, and the hole through which it passes, oval, it will give it a tendency to close itself, a catch shaped like the accompaning figure, cut in the face of the post, next the gate, receives the latch, and holds it fast.



A post set for it to open against at right angles, and a small catch in the middle of the gate, at bottom, which rises when it comes in contact with the post, and drops over it, "makes all right." Ever yours, W. B. B.

LIMING—MARLING.

It may be assumed as a reasonable conclusion, that all lands that have been long in culture, without being limed or marled, require a dose of either the one or the other, and it is immaterial which of the two it may receive. The land will, however, bear more of marl than it will of lime, for these reasons; first, because, there is less of the calcareous principle in it; secondly, because, it is in a milder state; and thirdly, because, there is generally in marl substances which are convertible into nutritive manures by the action of sun, moisture and air.

In the application of either lime or marl to arable lands, it is necessary that the quality and condition of the soil be carefully considered; for poor [land] 20 bushels of lime or 50 of marl is sufficient [per] acre at the first application; for medium soils, [double] these quantities may be safely applied, while [on] first quality soils, well charged with vegetable [mat]ter, one hundred bushels of lime, or two hundred [bushels] marl, may be applied not only in safety, but [with] certainty of resulting benefits. We wish, [however], to impress this truth upon our agricultural [friends] that all limed or marled lands, should very speedily after the application of either the one substance or the other, be set in clover or grass, as it is necessary to create in the soil materials to be wrought up into food by these minerals; plants requiring food for existing of many other ingredients than are usually found in calcareous matter alone.

PITCHING YOUR CORN CROP.

In pitching your corn crop, be sure to plant more corn than you can well manure, unless your land is fertile. To plant corn in fields that will bring no more than 2, 3 or 4 barrels to the acre is to labor without the prospect of profit; at the same time, you are making your land still poorer. If you have a poor field of, say 20 acres, that you intend to put in corn, and only manure enough for 10 acres, put your manure on those ten acres; cultivate them well; and they will yield you more bushels of corn than would the 20 acres half manured and indifferently tilled. If you ask us, what you shall do with the remaining ten acres? our reply is, sow them in buckwheat; that, by ploughing the product in the ground as it comes into bloom, you may, in the course of the season, turn in two crops of buckwheat, which will be equal to a tolerably fair dressing of manure. Ah! but you may say, that the land will be no richer than before, because nothing more has been returned to, than grew on it. True it is, that the buckwheat which will have been ploughed in did grow on the land; but then you should recollect that, while growing, the buckwheat, owing to its construction of leaves, will have derived a very important portion of its food from the air, which, being ploughed in, adds to the store of manure. Again, owing to the length of tap-root, it draws from the subsoil certain mineral bodies, which, by the operation of ploughing, is mixed with the surface soil, thereby adding to its elements of fertility.

In sowing buckwheat with a view to the improvement of the soil, we would, by all means, sow at least two bushels of salt and one of plaster per acre; or, what would be still better, we would make a compost of 8 bushels of bone dust and 5 bushels of ashes per acre, and sow that, after letting it remain in pie for a few days until the mass became heated; then we would spread it on the ploughed ground and harrow it in with the seed; and over that we would sow a bushel of plaster per acre, to attract and fix the fertilizing gases of the atmosphere. The latter treatment is an inexpensive one—the quantities of fertilizers small, comparatively speaking, but, inexpensive and small as they may be, they would so far resuscitate your land as to enable you to set it down in wheat next fall, or, if you prefer it, grow corn on it next year.

ENTRAL AGRICULTURAL SOCIETY.

think we recognize in the author of the following communication from the Washington Globe, an who has as much experience as most upon the subject upon which he writes—and opinion and advice we would sooner accept, such matters, than that of any other. We a full attendance will be had at the meeting in when important matters in reference to the of our State Society will be laid before the ers.—*Ed. American Farmer.*

APPEAL TO THE AGRICULTURISTS OF THE MIDDLE ATLANTIC STATES.

committee, appointed by the Maryland State cultural Society, and representing the States of Jersey, Pennsylvania, Delaware, Maryland, nia, and North Carolina, has made an "Appeal" to the agriculturists of the Middle Atlantic s, which should meet with a favourable response from every citizen. The object is to unite farming interests in the States named, in a ng and efficient Society, to advance both the tice and the science of agriculture in this part Union. That such an association, if established on a firm basis, can do an immense amount good, few will deny. How to organize it is the tion.

he writer has been familiar with the business ations of the New York State Society since it founded; and has had some experience in the n of the "Southern Agricultural Association," posed of members who reside in the States of h Carolina, Georgia, Tennessee, and Alabama. Association is in a flourishing condition; and small city of Atlanta, in upper Georgia, has ed to give $1,000, if it will hold its next Fair in its limits. The receipts at Syracuse by the York Society were some ten or twelve thousdollars—no one paying over $1, and few more twelve and a half cents.

is no difficult matter to get up a taking show, have it to pay expenses and something over, if skilfully managed. Let ten business men in more take the subject in hand, and proceed this fashion:

t. Get $1,000 subscribed to enclose, with a and tight board fence,* a ten-acre field, having re in a part of it, that neat cattle and other estic animals may have the benefit of a shade. porary buildings or tents will also be required. ing secured funds to meet all contingent expenthe next thing to be done is to bring out a grand ision of fine stock, farm implements, and the ucts of mechanical and fine arts, manufactures, whatever else will add interest to the Show. ecure such a collection of beautiful objects, to all tastes, and draw all classes from a distance, premiums offered must not be less than $2,000, iously divided among things of use and things ancy. Remember that it is to be a sort of anjubilee, and that all the ladies and little misses be delighted with what they see. Hence, dle-work, drawings, paintings, fruits and flow-

*The Md. State Society has already a field enosed of several acres, with the requisites named, the mechanics of our City and State have an hibition at the same time of holding our Fairs.—A. F.]

ers, are elements of strength and success. Charge no man more than a dollar for membership, and sell tickets for a single admission at twelve and a half cents; and you can repay the $2,000 advanced, or only guarantied by the ten gentlemen, and have at least $1,000, left to go upon next year. Without any members to your society you can sell in Baltimore in four days' exhibition, 24,000 tickets at twelve and a half cents each, which secures a return of $3,000. Let the public understand by show-bills and the journals in the several States from which visitors are to be expected, that there will be something really worth seeing at the Fair, and Baltimore will not be able to hold a moiety of the people that will flock there from more than six States. The outlay for the World's Convention or Fair, in London, next year, is to be about $400,000; one fourth of which will be paid in premiums. A large sum, it is confidently expected, will be realized after defraying all expenses. The New York American Institute annually receives from the sale of tickets of admission, some $18,000. A good Show takes human nature on its weak side, and *always pays*. A responsible and good financier for Treasurer, and a worker for Secretary being secured, the other officers of the Society should be distributed over the different States.

In addition to the above, it is all-important to excite the sympathy and command the earnest cooperation of the farmers in the whole territory embraced in the Society. Every pains must be taken to have them become members and workers in the Association, as committee-men. A large number of committees, with something to do, is of itself a power of no slight influence in a cause which appeals to the masses for support. Five hundred active members, whether they pay one dollar or three a year, can accomplish almost everything in behalf of a truly useful enterprise. AGRICOLA.

MIXING PLASTER WITH MANURE.—The late Col. John Taylor, of Caroline, Virginia, who, in his day, was one of the ablest and most observing of farmers, in a letter to Judge Peters, stated that he found as much benefit from the use of plaster when he mixed it with farm manure, prior to hauling it out on his corn grounds in the spring, as in any other way. Without presuming to account for its mode of operation, he contented himself with stating the fact, leaving it to others to follow his practice or not, as they might please. We allude to Col. Taylor's method of using plaster now, because it is worthy of being universally followed, as the success of his practice is just what might have been expected, when we look at the theory of the action of plaster. The sulphuric acid, which comprises a material part of its constituent elements, having a strong affinity for ammonia, and possessing the capacity to assimilate a large portion of it, absorbs it, as it is formed in the process of the decay of the coarse manure, and retains it until deprived of it by the galvanic action of the roots of the plants, thus acting as a store house, whence they derive large portions of their nitrogenous food. In this light, its action is both provident and economical—provident in preventing waste and laying by a store, and economical, in its dispensation, by yielding it up as needed by the wants and necessities of the growing plants.

BEE-HIVE AND BEE-HOUSE.

[At the First Annual exhibition of the Maryland State Society, the first premium was awarded to Mr. Thomas P. Stabler, of Montgomery County, Maryland, for the best lot of Honey,—which was accompanied with the following description of the kind of hive used; the honey was taken from the hive without destroying the Bees.]

DESCRIPTION OF DRAWING.

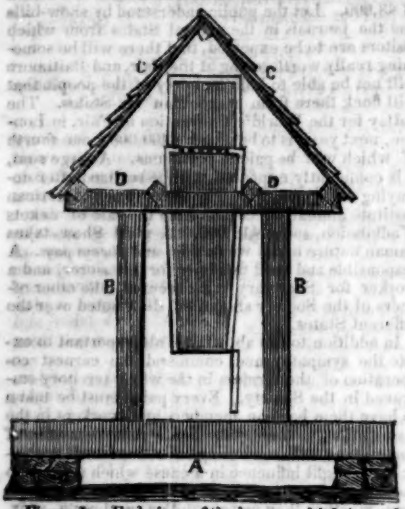


Figure 1.—End view of the house, which is twelve feet long, affording ample room for eight hives. The house is a slight frame, resting on the sills, six feet long; one at each end of the house, six inches square, laid upon stones or bricks, six (or more) inches from the ground.

(A.) *The Sills.*—Into each of these are morticed (B. B.) two posts, four inches square and three feet four inches long, placed two feet apart, and standing upright. On the end of these is placed a plate, (D.) four inches square, and four feet four inches long. Upon this is framed the roof (C.), as may best suit the builder. [Mine is simply rested in notches cut in the ends of the plates, so that four men can at any time lift it off or on if necessary.]

FRONT VIEW OF THE HIVE.

Figure 2. (D.) The hive, fourteen inches square at the top, and ten inches square at the bottom, and three feet two inches long.

(A.) The box on the top, twelve inches square in the clear.

(B.) Glass window, covered with a sliding board.

(C.) Holes, one and a half inch in diameter, in the top of the hive, over which the box is placed.

(E.) Bottom of the hive, fastened to the back part thereof, by a hinge.

Upon the plates (*Fig.* 1. D.), and near the middle are placed two pieces of scantling, three inches square and one foot apart, both let on corners (so as to present the corners towards each other). The hive is suspended between these runners, resting the bottom of it some two feet from the ground.

It will be perceived that the conical form of the hive, enables us to slip it down between the runners, which hold it steadily in its proper position, as the Bees fill it with honey, its form operates as a wedge, effectually preventing the breaking off or falling of the honey-comb. The bottom of the hive is suffered to hang down, from early in the spring till late in the fall, permitting the wrens, sparrows, blue birds, &c., to search for the moth or miller, and also affording the bees a fair opportunity of discharging from the hive any insect that may enter.

When the weather becomes cold, the bottom is raised by means of the cord (*F*), and made stationary at any height desired.

The hives are placed in the house empty, having first been cleaned, and rubbed with a mixture of salt and sugar, (a tea-spoonful of each, moistened with water.)

When a swarm is to be hived, make a little bed of folding of boards under the hive, on this spread a clean cloth. Having cut off the bush or limb on which the bees have settled, shake them off the bush, on to the cloth, and they will soon take possession of their new home.

At any time, (a few weeks having elapsed after the box is filled,) the box may be removed at night and placed bottom upwards in the cellar, or in an open out-house, and early the next morning every bee will leave it and return to the hive. Then take out the honey and replace the box the next evening.

If it be thought best not to disturb the parent swarm during the summer, the bees, when the weather becomes cool in the fall of the year, will all retire to the central part of the main hive, and the box of honey may be removed without disturbing them in the least.

The box containing the honey, herewith exhibited, was removed in this manner about ten days ago, and was filled by a swarm hived last spring, leaving the bees a large supply for the winter.

Submitted by THOMAS P. STABLER,
Near Brookeville, Montgomery County, Md.

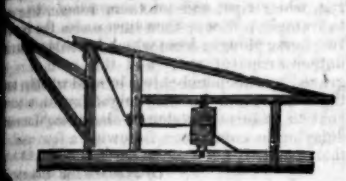
MACHINE FOR RAISING MARL.

Shingleton, Sussex County, Virginia,
FEBRUARY 18th, 1834.

To the Editor of the American Farmer.

SIR:—In the February number of your valuable Journal, I find that you would consider it a favor if some one of your subscribers would furnish you with a drawing and description of a machine for raising marl. It always affords me pleasure to benefit in the least my fellow man, and especially my brother farmer. Marl, in this section of Virginia, is generally found in deep ravines or in wet grounds, and the old method of getting it out, is very laborious and troublesome. The draught of the machine herein sent, has been used with great advantage; it is to be worked by a horse, and it is more especially adapted to getting out marl where the pits are wet; by means of a pump to throw off the water, pits may be worked at a considerable depth. Two boxes are generally used, and by means of hinges and a catch, the marl is discharged from the bottom. The chain passes through the swoop about eighteen inches from the end,

to the post which supports the swoop, and through it, on a small cast-iron roller, and manner, through the next to the cylinder.—which holds the swoop and cylinder, runs gudgeons let into iron inks. The lever is pieces, one fastened in the cylinder, with a the end, into which the other is let, and by a sliding iron clamp. When the marl is from the box, and the swoop swung over the pit, then, by unshipping the end of ver, the chain unwinds, and the box descends without moving the horse, where there is box, ready to be attatched to the chain. circle in which the horse moves, should be ne feet in diameter, and the second and post supported by side braces.



not believe your correspondent could erect a r and more efficient machine that the above. ork is not oppressive to the laborers. Trust- at the above will prove satisfactory.

I remain your obedient servant,

THO'S. E. BLOUNT.

PRIZE LOT OF POTATOES.

will will be seen by the following note from Clagett, that he accepts our suggestion, to ex- the area of competition: we will lay the sub- fore the Board of Managers of the State So- at their meeting on the first day of May, and eir concurrence therein, the appointment of a l committee to make the award, and for the lishment of such rules in regard to the matter, y be deemed proper to carry out the object in

"Pomona," Washington County, D. C. }
March 18th, 1850. }

Editor of the American Farmer.

AR SIR:—Feeling gratified that my proposition with your concurrence, it only remains for me at this time, that I most cheerfully accept suggestion, and will not circumscribe the sub- rs to the District or the State of Maryland; ave it optional with *any*, and *all*, to compete e prize.

reason for suggesting so small a number of es, was, that it allowed *any*, and *all*, to par- ate; a few feet of ground, and a very small , accompanied by enterprize, knowledge and being *all* that is required.

ould suggest, that the committee be appointed e society: that the subscription list be closed, about the first day of July; that the potatoes the best "white mercer," and *each sample to* ed ratire, by the person exhibiting them.— is to say, that no two or more shall be allowed e, and select from fifty or seventy-five pota- twenty-five, and thus secure, and then share the prize as agreed, among them. That, as you will readily perceive, would defeat the object aimed at, viz:—to ascertain the most desirable, economical and judicious mode of cultivating so essential a vegetable as the potatoe.

Your intimate knowledge of matters of this kind, and your kind services I invoke for the accomplishment of so desirable an end.

Leaving the proposition and its concomitants, in the hands of its foster-parent,

I remain, very respectfully,
Your obedient servant, D. CLAGETT.

For the American Farmer.

STEAM ENGINES FOR FARM PURPOSES—THRASHING MACHINES—PLANK ROADS.

Not a small portion of labor is lost on every farm, by handling oftener than necessary, the small grain in straw, and at every handling, from the tying into sheaves, to dozens, hand shocks and ricks, more or less grain is shattered and lost. On many large farms, it has been the practice to rick all grain in the fields, haul to the barn, then thrash, feed among the straw, and haul back the manure to the same or adjoining fields. Now that improved machinery has come to our aid, I propose to suggest a plan which will save much of this unprofitable labor, and do away with the expense of barns, or convert them to other purposes.

In the Mark-Lane Express, published in London, of the 19th November last, is an advertisement, with a wood-cut of a Locomotive Steam Engine, weighing, I should judge, about two and a half to three tons, placed upon wagon wheels, and easily moved by horses to any field or farm. It should be, if it is not, about twelve horse power, and will consume about one cord of dry wood per day. We saw at the State Agricultural Exhibition, in October last, a threshing machine from Winchester, Va., which promised to receive the grain in straw, and bag it well and properly cleaned; from the use it appeared to have had, I have no doubt its work was satisfactory. With such a machine attached to the locomotive, the limit to its work would be about the capacity to deliver the grain in straw. If very dry when cut, the same hands which now bind it, could load it in wagons without hindrance, and keep the straw away from the front of the machine. If not convenient to thresh when cutting, the wheat, after some hours sun, can be set up without binding, in large dozens, well and properly capped, (and wheat keeps better and dryer in this way than in any other,) when after the cutting is over, it can be delivered by useing large four pronged bound forks, on to wagons, and then to a large revolving roller attached to the thresher. Five to seven hundred bushels of clean wheat can thus be put away at night; the straw properly ricked near water, where temporary and warm sheds will enable the cattle to make it into manure, on or near the fields where it is required. But you may say, why use steam? Because steam is steadier, will do more work, and can be used during the rest of the year in connection with a good saw-mill, to work up the useless timber on a farm, for any and every purpose, but particularly for plank roads, which cannot be made unless the plank can be furnished cheaply—this can be done along the line of any road, for from five to seven dollars per thousand, by aid of such a locomotive. Five thousand feet per day can be sawed easily, of the kind required for plank roads, and twenty-five

to thirty-five dollars per day will be found to pay a handsome profit.

Good roads are one of the last improvements of civilization. In Ohio there were, last year, applications for forty, this year for sixty charters for plank roads. In Maryland, two to four are asked for. Why is this? Are our country roads already so fine as not to require to be improved, or are we not increasing the products of our lands? But you say, this requires capital, and will not do for every farmer. What does not require capital that works a great saving, or makes a great profit? Does not a barn require capital? One machine like this, would thresh out all the grain, and clean it up, in a neighborhood of five to ten miles square, and that very quickly, and with great saving. I believe the grain now lost, by our method, would pay for getting it out. If machine was hired out, in a neighborhood, the neighbors uniting their teams to keep it at work, the farmer could well afford to pay from eight to ten cents per bushel for cleaned grain, and save both grain and time. Let some of our enterprising machinists get up a locomotive of this kind, at a price which would justify its use, and we shall soon see the many uses it will be put in the improving farming districts. C.

For the American Farmer.

Attachment to a Plough, for turning under Green Crops, &c.—Division of Fields, and Rotation of Crops.

Whilst my pen is in hand, I will describe to you a fixture which I use for turning under clover, peas, weeds, &c., which I think preferable to a roller, or an ox chain attached to the swingletree. Saw off a block from some hard, durable, and heavy wood; say about ten inches long, or three and a half or four inches in diameter; then take a piece of trace chain, about three feet long, confine one end to the block, by driving a small staple in (the end,) having first passed the staple through an end link of the chain. Point the other end of the block, and attach a larger chain in the same manner to that. Tie the short chain, (attached to the square end of the block,) to the rod which passes through the mould-board and beam of the plough, by wrapping it around (the beam) at that place; drop the block in the bottom of a furrow which has been already opened, (of course on the mould-board side,) draw up the long chain, and attach that to the clivis pin or clivis;—be sure that you have both chains just tight enough to permit the block to lie in the furrow; allow no slack. The short chain gathers the clover, weeds, &c., and bends them down; the weight of the block prevents the chain from rising, and the plough laps the dirt over the weeds, whilst they are in a recumbent position. I am this day turning under weeds as high as the heads of the ploughmen, which are almost wholly concealed. In describing this attachment, Mr. Editor, I may be carrying coal to New Castle; if such be the case, toss this under your desk.

As I see several divisions of fields and rotations of crops, spoken of in the "Farmer," I will detail my plan, although there may be nothing original in it. My manor farm is divided into five equal shifts, after reserving nine acres for trucks, as follows:—three in sweet and Irish potatoes, (i. e., two in the former, and one in the latter,) three acres in pumpkinds, and three in Ruta Bagos. Field No. 1, will be in corn this year, (1850.)—No. 2, oats, clover, and orchard grass sown.—No. 3, clover and orchard-grass, first crop cut for hay, second grazed... clover, first crop grazed, second permitted to main and ploughed under for wheat.—... wheat; which the next year will be put in corn thus alternating throughout. After manuring truck lots in the spring, balance of putrescent nure is put on the field that is to be in corn, which follows wheat, and I endeavour to have enough to go over the whole field. My ad... farm, which is too remote from the homestead receive an application from the farm pen, is... into two equal shifts—No. 1, corn.—No. 2, ... and not grazed. My design is to sow rye ... the standing corn and peas, when it will ... without any covering more than the shade ... peas; (for I always sow peas broad-cast ... cultivators, when laying by corn,) turn hogs ... rye, when ripe, and let them remain long ... to trample it down; then turn under the rye ... two horse plough; from which I should expect ... unteer crop (of rye,) and this in turn ... grazed by sheep and calves in mild whether ... the winter, and possibly might furnish a ... coat to be turned under in the spring for ... delaying to commence fallowing a few weeks ... than usual.

H*****

Of Nansemond County, ...

CENTRAL AGRICULTURAL SOCIETY ... SHEEP HUSBANDRY IN VIRGINIA.

Chantilly, Va., February 2d, ...

To the Editor of the American Farmer.

The proposal from the State Agricultural So... of Maryland, meets with general approbati... Virginia, and I hope this State will be strong... presented at the next annual meeting. It is ... combination alone that Agriculture can ho... that assistance it has so entire a right to expe... the Legislatures of the country.

I observe in a communication from the ... pondent at Washington, (of the Baltimore Su... the 2d instant, that the rearing and fattening ... lot of prime South Down mutton, sold to ... Miller, butcher, was attributed to Mr. R. T. ... one of the Northern imigrants; this was a mi... the sheep alluded to were raised and sold by ... self; they were Southdown and Bakwell cross... twenty months old, grain fed seven weeks ... and averaged one hundred and forty-two p... gross weight. No one can appreciate more ... do, the great improvement introduced into ... country by our northern friends, but being ... *those* Virginians who believe there is some life ... vigour still slumbering in the old stock, I am ... exactly willing that, where by accident this ... been aroused, its fruits should be attributed to ... of late importation and *habitual* energy. Pl... enter my name as a member of the Agricul... Association of the Middle States.

Yours, respectfully, S. T. STUART.

Plank Roads.—Plank roads are very pro... called the "Farmer's Rail Roads." The ... in our last, on the subject, has attracted consi... ble attention. The Ohio Cultivator says, that ... charters were granted last year, by the Legisla... that State, and that not less than fifty or sixty ... plications are offered the present year, ... which, it is thought, will be granted; the two ... previous to 1849, there were only eight or ... plications.

Report of Dr. James Higgins,
TATE AGRICULTURAL CHEMIST.

mpliance with our promise, we commence
ication of the report of the State Chemist,
ll continue to give such portions of it as our
will admit, until the whole is completed.

Report commences with the act of the Legis-
of Dec. session, 1847, which having been al-
ublished in our journal (see No 1. vol. 4)
it, and then proceeds as follows:—

d the honor to receive the appointment under
ove law, and as soon as the necessary appa-
ents and re-agents could be procured, com-
d the discharge of its duties.
rst of those duties was to analyze the varie-
f soil in order to determine the presence or
e of the necessary constituents of crops,—
whether they existed in sufficient quanti-
to recommend the application of such par-
substances as would most economically sup-
whatever defects might exist, render barren
rtile, and retain the fertility of those which
e productive at the present.
determine the *necessary* constituents of crops,
e only to examine them by the aids which
cal chemistry affords, and when we find par-
substances always present in them, when we
although in different plants they may exist
able proportions, yet that they *are always* pre-
we must conclude that they are the substances
ry to their existence.
re are certain substances, to be described
er, which are always found in plants—in no
in no country, under no circumstances, do
find the one without the other. The con-
then, is, that these substances are necessary
existence of plants. But there is another
stronger proof. The object and aim of all
ion is to sustain by the food which it produ-
human body. This food then *must* contain
e elements which enter into the compostion
body, if it did not, it could not subserve the
es of nutriment. The human body is always
something by exercise, something by disease,
nething by breathing—(the very act of life;)
is again supplied to it by the food which it
ceives the instinct of the appetite. If this
d not contain *all* of the elements thus lost,
rt of the body would not be renewed and
ld end. Food must contain not only the ele-
of blood and bone, but of all the tissues of
y; and as all food is either directly or indi-
supplied by plants, the plants must contain
These substances then are the necessary
ents of plants. It is out of place here to
of the manner in which the elements of veg-
structure are converted into the different
es which enter into the composition of an-
ies, and I shall say nothing on that subject.
ecessary constituents of soils are determin-
a knowledge of what plants require. The
f plants is derived from the air which sur-
them, and from the soil in which they grow.
all not in this place say of the atmosphere
re, than that if the soil cannot obtain the
food from it, then that food must be sup-
rtificially, or sterility will be the inevitable
uence. A certain portion of the elements of
from their nature *cannot* exist in the atmos-
phere; they then must be present in the soil, or vegetation cannot be produced, because without them plants cannot be formed. It can in this manner be perfectly ascertained what substances are necessary to the plants that are used for food, from our knowledge of the matter in a human body which is furnished by that food, as we can perfectly ascertain what are the necessary constituents of soils from a knowledge of the materials which those plants require for their complete development. The best *proportions necessary to constitute a fertile soil* can only be determined by the chemical analysis of a large number of fertile soils. With each examination one certain step is gained in the solution of this great question.

As the more numerous examinations become the *minimum* quantity, that will produce the largest yield will be ascertained, and then the perfection of Agriculture will be attained. Of the substances to be described hereafter *all must be present to constitute a fertile soil*; and they must not only be *present*, but they must be in *sufficient quantities*, and in a form to supply the wants of a crop. What the *best quantity* is has not yet been exactly ascertained. We must not reject the aid of science, because it at once cannot give us a perfect system; we must compare what it affords with what exists without its aid. The one system is possessed of a degree of certainty continually approaching to perfection, the other is altogether empirical, and never taking one certain forward step.

I have said that all of the necessary substances must be present, and I moreover add, that *an excess* of *any one* cannot compensate for the absence or deficiency of another. So that we have this general rule, that the fertility of a soil depends not on the quantity of several of the necessary constituents, but *upon the proper proportion of them all.*

To show this, I submit the following table, the facts of which are taken from numerous analyses made in England and Germany, by men whose reputation vouch for their truth, and from some made by myself in this State.

It is only by facts of this kind, well established and indisputable facts, that principles in agriculture, or in any art or science, can be demonstrated. The creations of fancy, however beautiful, cannot now satisfy the human mind in its yearnings for truth. It seeks for and is only contented with what is proven by exact demonstration.—No mere hypothesis, however brilliant, can be now received with blind confidence. No theory now, however fascinating, can be tolerated, that is not founded on legitimate deductions from indubitable facts. Experimental inquiry and scientific investigations must be appealed to, to satisfy all doubts, for the human mind is not satisfied with explanations of that which it does not understand by assumptions more incomprehensible than that which is sought to be explained.

A soil may contain any or even all save *one* of the constituents of a *good* soil, in the large proportion indicated below and yet be unproductive.

Lime,	1.65	1.80		*6.25		
Humus,	398	*4.10		*3.09	*3.88	
Magnesia,	.16	.28	.73	.80	*1.85	
Potash,	.05	.15	.30	*1.20		
Soda,	*.10	*.30		*.85	*1.65	*2.13
Phosphoric acid,	.19	.198		.36	.49	.20
Animal and vegetable or Organic matter,	*10.12	*25.00		*32.16	*32.17	
Chlorine,	.06	.08		*.11	*6.21	*.42
Sulphuric	.051	*.062		*.255	*.267	

Alumina or pure Clay,	5.25	7.97	*13.21	*18.50
Silica or Sand,	*.92	*95.61	*97.84	*68.00
Iron as per Oxide,	*8.14	*10.30	*17.75	*29.00

Those marked thus * are soils of our own State.

N. B. .1 or .10 is the one tenth of one per cent, and is equal to about thirty bushels to the acre of the substance it represents, the specimen being taken to the depth of twelve inches. It is equal to the one-thousandth part of the specimen. All these soils were unproductive. So that it is proven by the above facts, that a soil may contain five hundred and forty, or even eighteen hundred and seventy-five bushels of lime, distributed to the depth of twelve inches; that it may contain 375 bushels of magnesia; that it may contain sixty bushels of phosphoric acid, equal to about two hundred and forty bushels of bone dust; or that it may contain three hundred and sixty bushels of potash, and yet be sterile, barren, and unproductive, and not repay the cost of cultivation. The same is equally true of any number, save all of the constituents of a good soil. On the other hand it is proven that soils very productive particularly for wheat, may contain the small proportions of any one of the necessary constituents, the rest being present in proper proportions. This is shown below.

Lime,	.29	*.32	*.40		
Magnesia,	*.21	*.18	*.16	.12	
Potash,	.12	.10	.08	.06	.02
Soda,	.09	.03	.018		
Phosphoric acid,	.02	.01			
Organic matter,	.67				
Chlorine,	.003	.002			
Sulphuric acid,	.005	.008			
Silica(sand,)	64.5	59.21			
Alumina,	1.	1.70	2.60		
Iron as per Oxide	1.25	1.06	.69		

It is shown from the above that a very fertile soil may contain only eighty-seven bushels of lime to the acre, to the depth of twelve inches, or only two one-thousandth of a bushel of Chlorine, or as little as six bushels of potash, or three of phosphoric acid, equal to about twelve of bone dust.

Hence on the examination of a soil, if we find the above proportion of any of the necessary constituents, in a form capable of being used by plants, we must conclude that enough of that particular constituent is present. If the soil be unproductive we have to look for and counteract some other chemical or mechanical deficiency.

To retain the fertility of a soil already productive, it is necessary to add to it a quantity of fertilizing matter equal to that which is taken off by the crop, allowance being made for the portion which may be lost by percolation through the soil. By doing this, we can always retain soils at whatever point of production they may have, and even have their productiveness increased. A soil which from its texture is peculiarly good for wheat, may thus be kept in a condition to produce a crop every year *without any rotation*. The same is true with regard to corn or any other crop.

Soil.—By this term is understood in an agricultural sense that portion of the earth's surface which serves or may serve for the production of crops. Under all circumstances where a blade of grass and the smallest seed is produced, there are *present all* of the necessary constituents of fertility.

The quantity of these things present determines its fertility in a soil when taken in connection with its physical character.

In all soils which are not absolutely barren we have the following constituents, they being in the soil, the things out of which the soil is made. First:—

Organic Matter.—This is animal and vegetable matter considered, without reference to its organic constituents, and is composed of the remains of plants or animals which existed in the soil. It is called *organic*, because it has at one time entered into a form capable of performing the functions of life, has become a part of those things which are called organs, whose duty it is to perform processes without which there cannot exist that system of vital functions which we call Life.

At one time very great importance was attached to vegetable matter in soils, many teaching that it was the indispensable thing to fertility, and that lands were productive in proportion as they contained a greater or less proportion of it. This has been demonstrated by numerous examinations not to be the case, for the productiveness of soils has no relation to the quantity of organic matter which they contain.

Its use is now restricted to giving the necessary degree of porosity to stiff compact soils, and to the ability which it has by its decomposition of retaining rain water or dew better solvents of the mineral constituents of a soil. Every grain of sand contains something, sometimes all of the necessary constituents of crops, which are of no use until they become dissolved into a state capable of being taken up by plants. Whatever will effect this is of service to the soil. Vegetable matter contains a large proportion of carbon, (charcoal) which on exposure to the air is changed into carbonic acid. Water impregnated with this substance, has the property of powerfully dissolving all minerals found in a soil, and by this means rendering it more productive. Its quantity varies greatly in different soils. In some it is found less than one per cent., and in others, as "Black Gum Swamp Soils" of Worcester and Somerset, as much as sixty-two per cent. Secondly

Silica or Silicious Earth or Sand.—Exists abundantly in all soils. Though having more of the sensible properties of an acid, yet it nevertheless belongs to this class of bodies, and combines with bases to form salts. It very rarely exists in a pure form in the earth, being almost always in union with some other substance, and forming a class of bodies called, *silicates*. With the alumina and the oxide of iron, it forms our red and yellow clays; it most generally is associated with lime, magnesia, potash or soda. The "grains of sand" in soils are composed of pure sand, (silicic acid) in combination with some of the above substances. In pure water those combinations are quite insoluble, but water charged with carbonic acid, dissolve them in a sensible degree. When in the *nascent* state, that is, when first set free from its combinations, water dissolves pure silicic acid very readily

Besides its determining the mechanical properties of soils and when in a very fine state of division acting as a substitute for iron and clay in their absorbent capacity, it has a more particular use, that of forming the stalk and stem of plants and the hard or outward envelop of the grain. In combination with potash, soda, lime and magnesia, but more particularly with potash, it gives hardness and firmness to the stalk of grasses, indian corn, wheat, rye, oats, &c. It gives strength to support the weight of the blades and ear, forms channels for the circulation of the sap and for the transmission from

root of whatever nutriment other parts of the plant may require. Without the presence of this substance, and that too in a suitable state to be taken up by the roots, whatever quantity of the other constituents of plants might be present in a soil, vegetation could not arrive at any perfection. If the materials for the grain or ear existed, still there would be no stalk to support them. The quantity in different soils varies from thirty-five per cent in the "Black Gum Swamp Soils," of Somerset and Worcester to ninety-two and seventy-four hundredths in some of the soils of Cecil, Kent, Queen Anne's, Talbot, Caroline and Dorchester counties.

The soils which in common parlance are called, "Sandy Soils," frequently contain no more sand than those which are called "White Oak Soils, or Pipe Clay Soil."

The difference in their texture is due to the size of the individual grains of sand and not to the quantity which actually exists. Other things being equal, the finer the grains of sand, the better the soil. As the growing crop can only use such materials as are already in or can be reduced to a soluble state, whatever can conduce to the state of solution will benefit them. The finer the grains of sand the more easily they are acted on by atmospheric agency, and the more speedily will they yield whatever substances they may *contain*. But there is another and a very great difference in the value of coarse and fine sand. A large part of the food of plants is derived from the atmosphere. This food must be absorbed wholly by the soil, in the early growth of the plant, and if the soil has not the power of absorption, the plant will pine, languish and die, unless it is supported by applied manures. Sand in a very fine state of division has powerful absorbent qualities, it absorbs and retains atmospheric food for plants, and to a very great extent supplies the place of alumina, (clay) and the per oxide of iron, which are famous for this property.

Iron.—Another constituent substance of soils is iron.

It always is present, though not in the form of metallic iron, but in the state or condition of an oxide of iron. When metallic iron is exposed to air and moisture, it becomes rough and covered with reddish or brown scales. This is what is called in common language *rust of iron*, the process is called *rusting*. In chemical language it is called the *oxidation* of iron, and the product an *oxide of iron*. In soils it is generally in the condition of per oxide or its highest degree of oxidation, and gives a reddish or brown color to them. It is this which gives our red and yellow clay soils their peculiar color, and frequently also tinges sand; which thus colored is called ferruginous sand. It has several important uses in the soil.

1st. It is one of the necessary constituents of the human body, being always found in the blood of healthy persons. From the impossibility of its existence in the air, we know that the body must be supplied with it from the food which it consumes; but the plants used for food can no more obtain it from the *air*, than animals, hence they must obtain it from the soil, and it is therefore a necessary constituent of soils.

Not only is it, itself, food for plants, but it is a gatherer of food for them in the atmosphere.

Baron Liebig, one of the ablest writers on agricultural chemistry, of this or any other day, though overlooking the first use of iron in a soil, so clearly and satisfactorily explains the second, that I cannot do better than use his own words;

*"Per oxide of iron and alumina" says this able and eloquent writer, "are distinguished from all other metallic oxides," (i. e. rusts of metals,) "by their power of forming solid compounds with ammonia. The precipitates obtained by the addition of ammonia to salts of alumina or iron are true salts in which the ammonia is contained as a base. Minerals containing alumina or oxides of iron, also possess in an eminent degree the remarkable property of attracting ammonia from the atmosphere and retaining it. * * * * Soils therefore containing the oxide of iron and burned clay, must absorb ammonia, an action which is favoured by their porous condition; they further prevent, by their chemical properties, the escape of the ammonia once absorbed. Such soils act indeed precisely as a mineral acid would do if extensively spread over their surface."

"The ammonia absorbed by the clay of ferruginous oxides, is separated by every shower of rain, and conveyed in solution to the soil."

Our red and yellow clays need no burning, the iron in them being already in the state of per oxide heat would not benefit them. It is only in the white or dark clays where the iron is in the state of protoxide, that would be of any use if applied.

The per oxide of iron in a soil, also absorbs and retains moisture, and whatever else of the food of plants which exists in the air.

3d. It gives firmness and compactness to the soil, and better fits it for those plants which flourish best in those soils.

4th. It gives color to soils which makes them absorb heat better, and in this way gives crops a quick early growth.

The quantity of the peroxide of iron which exists in soils is very variable. In the red clay lands of Cecil, I have found as much as (4.80',) four and eight tenths of one per cent. In some of the white oak lands as little as sixty-eight hundredth of one per cent. In some of the light sandy soils in Caroline, Dorchester, Somerset, Worcester, and in those lying on both sides of the Chester river, occasionally a fraction less .64. As a general rule, the quantity of it in the soil decreases, as we go down the Shore.

Alumina.—Pure clay or alumina is another of the constituents of all soils. It, like iron, is the oxide or rust of a metal called aluminum which never exists naturally in its pure state. "The different kinds of clay of which pipes, porcelain and earthenware are made, consists of hydrate of alumina, in a greater or less degree of purity." It has not the same important action as iron in the human economy, but its uses in the soil are very nearly the same, giving it tenacity and firmness, absorbing, like it, moisture and food from the atmosphere, forming "true salts" with ammonia, and having, like it, the properties of an acid or an alkali; of an acid, by uniting with alkaline bases such as potassa, lime and baryta; and of an alkali, by forming salts, with acids. Our red and yellow clays are by no means pure alumina, but silicates of alumina and the per oxide of iron, united with lime, magnesia, and sometimes with potash, and very rarely with soda—that is, pure sand chemically united to these substances. It varies in soils from (.72) seventy-two hundredths of one per cent. in light sandy soils, to as

*Chemistry in its Applications to Agriculture and Physiology. (Edited by Lyon Playfair and Dr. Gregory, 4th London Edition.)

much as 5.25 in others. In those soils which are commonly called "pipe clay or white oak" soils, it is not in such proportions as persons usually imagine, being very rarely over 3.75 per cent. and sometimes as little as 1.02 per cent. in them. Where it exists in the proportion of from nine to ten per cent. good building bricks may be made. In the clay from which the *best* Baltimore bricks are produced, I have never found more than 19.50 per cent. of alumina. Sand in a very fine state of division, as is the case in the "pipe clay or white oak soils" may be a substitute to a certain extent, for both iron and clay.

LIME.—The great use of this substance as a manure, and the frequent benefits that result from its application, make almost superfluous the bringing forward of any proofs of its necessity in a soil. Lime, like alumina, is the oxide or rust of a metal, never existing naturally in its pure state. The metal of lime is called calcium. Lime exists in a soil sometimes as carbonate, that is air slacked lime, but most generally as silicate, that is chemically united to silicic acid, or sand. In the human body in union with phosphoric acid, it forms a very large part of the bones. It exists in combination with different acids in the root, stalk, blade, and grain of all plants.

Besides the necessity of its presence to form the structure of plants, it performs many other important functions in a soil. It promotes the decomposition of vegetable matter, and thus causes it to yield the different mineral substances which it contains, as means for the production of another growth. It improves the mechanical texture of land; this is but one of its smallest uses. It powerfully aids the disintegration of the minerals (grains of sand,) in a soil, which contain many of the necessary elements of plants, and which, without the *fluxing* or *fusing* power of lime, would still retain them. This is one of its greatest and most important uses, and we cannot yet say, whether or not, lime, when applied to a soil, does not act more beneficially in this way than in any other. More investigations by chemical analysis, assisted by practical experiments, must be made than have yet been, to settle this question, and to determine in what manner, under what circumstances, and in what quantities lime acts best. In none of the soils which I have examined, has it been found in sufficient quantities, except where, at some time or other, it has been applied artificially. For other information—*see* the article on it, under the head of Manures.

MAGNESIA.—Magnesia is the oxide or rust of a metal called magnesium, which never exist naturally in a pure state. It is one of the necessary constituents of soil, being found in the bones of animals, and in the roots, stalks, leaves, and grain of plants. It has, in many respects the same action as lime, and to a certain extent can be substituted for it. The quantity of it, varies greatly in different soils. In some I have found as much as one per cent., equal to about three hundred bushels to the acre, to the depth of twelve inches, and in others but a mere trace. The facts to show what the best quantity is in a soil, are very meagre. As far as my knowledge extends I believe that where it exists in a less quantity than one-tenth of one per cent in a soil, magnesian lime is the best application for that soil. There have, as yet, been no experiments on the subject, and no means taken any where as far as I know, save in Maryland, to lay down any foundation for experiment that will be worth any thing when made. My own knowledge, as to the action of it, is derived from gentlemen who have used both magnesian and oyster shell lime on their lands, and from analyses of the soils which I subsequently made, which have led me to the above opinion, and are the only data yet given to the agricultural community on this subject.

POTASH.—Potash, the oxide or rust of a metal called potassium is another of the necessary constituents of soils. In union with silicic acid it gives strength and firmness to the stalk, and to the husks or envelop of the grain.

The proportions in which I have found it to exist in soils are very variable, from a mere trace in some, to as much as (1.20) one and two tenths of one per cent in others. But a very small quantity is absolutely necessary. I have known a very productive soil to contain as little as (.05) five one hundredths of one per cent, and fifteen bushels of wheat to be produced where only (.008,) or the eighth one thousandth part of one per cent existed.

SODA.—Soda, the oxide or rust of a metal called sodium, is another of the necessary constituents of a fertile soil. It has nearly the same uses as potash, and may be substituted for it to a certain extent. It exists in various proportions in soil, but a very small quantity seems to be all that is necessary. I have not been able to make very satisfactory examinations in relation to this substance, as the section of the State where I conducted them was supplied, to some extent, by air from the salt water which surrounded it on every side. The quantity in the soil, therefore, could not be taken as proof of the quantity necessary to supply the crop.

On salt water, land produces wheat with bright strong straw, whilst land remote from it, with an equal quantity of inorganic matter, will not do this, because it is not supplied with soda from the atmosphere.

PHOSPHORIC ACID—Is also one of the necessary constituents of a fertile soil. With lime and magnesia it forms about fifty per cent of the bones of animals. Its elements are also found in the blood and brain, and in combination with different bases, it forms a very large proportion of all grains that are used for food. It exists in the soil, in combination with lime, magnesia, potash, soda, iron, and alumina. With those substances, and others of this class, it forms salts which are called phosphates. Unless there be this substance present in a soil in sufficient abundance, and in proper *form* for use, no matter how rank or strong the crop of straw may be, there will be no corresponding yield of grain. Hence, in soils famous for large crops of straw, with a small quantity of grain, the farmer may increase it by the application of manures containing this substance, which are principally bone dust and guano.

SULPHURIC ACID.—Sulphuric acid, (commonly called oil of vitriol,) is also a necessary constituent of fertile soils. It most generally exists in combination with lime, forming with two equivalents of water, what is generally known as gypsum. Its elements exist in all plants, and in the blood of animals. The quantity necessary to constitute a fertile soil, is very small. This has been shown by numerous practical experiments, as well as by many analyses. Sulphates, as such, will not act on a soil which contains as little as (.005) the five one thousandth part of one per cent of sulphuric acid.

Besides the soil, the air undoubtedly supplies the plants some portion of the two substances named above, or rather supplies the elements by which

they may be formed. All animal and vegetable bodies, by their putrefaction, give rise to volatile compounds, containing sulphur and phosphorus, and under conditions which we know to exist, these compounds are changed into phosphoric and sulphuric acid, which, with bases, will form phosphates and sulphates. Although these two substances have not, as yet, been *detected* in atmospheric air, yet we know that they must exist there, and will be brought down by dew, rain, and snow, to the surface of the earth.

CHLORINE.—Chlorine is another of the necessary constituents of a fertile soil. In its pure state it "is a yellowish-green colored gas, which has an astringent taste, and a disagreeable odor." When breathed it excites violent spasm of some of the upper parts of the windpipe, and has a very irritant effect on the organs of respiration, even when diluted with air. In the soil it is almost always united to Soda, and very rarely to lime, magnesia, or potash. United to any of the bases, it loses its poisonous properties. With soda, it forms the different kinds of common table salt. It is believed to add to the weight of the grain. The quantity necessary to constitute a fertile soil, all other things being present, is very small. I have not been able to determine, with any degree of certainty, the smallest quantity necessary in a soil, as the atmosphere from the contiguity of salt water in the localities which I have examined, always contained a varying proportion of this substance.

The above compose all of the substances necessary to constitute a fertile soil. In some soils manganese is found, which is the oxide or rust of metal called magnesium. This, though occasionally found in fertile soils, and in the ashes of plants growing on them, yet is not essential, since its presence does not increase, nor its abscence decrease, the productiveness of a soil.

The air, in common with vegetable matter in a soil, furnishes to plants carbonic acid, out of which they form woody fibre, and all substances in them which contain charcoal.

Besides this it in common with many manures, affords ammonia, a substance which supplies a great share of the nutricious part of plants, and constitutes by its elements a large part of the mass of the bodies of the vegetable and animal creation.

Water is supplied, in this country at least, wholly from the atmosphere, in the form of dew or rain.

To recapitulate, then, we have as food for plants furnished by the soil alone:

Silica or sand,	Alumina or clay,
Iron,	Lime,
Magnesia,	Potash,
Soda,	Chlorine.

We have furnished in a great measure by the soil, but partly also by the air :—

The elements of phosphoric acid containing phosphorus:

The elements of sulphuric acid containing sulphur.

In localities adjacent to the ocean, bay, or indeed any salt water, there is always present in the air both soda and chlorine in the form of common salt.

We have furnished in a great measure by the air, but partly by the soil:—

Carbonic acid containing charcoal:

Ammonia containing nitrogen.

We have furnished exclusively by the air :—

Water.

These contain all of the elements necessary to the perfection of vegetable and animal life. Those of them which are not present in sufficient quantities, and which cannot be derived from the atmosphere, must be supplied artificially by what are called MANURES.

(To be continued.)

CURE FOR BOTS AND CHOLIC IN HORSES.

Baltimore County, March 15th, 1850.

To the Editor of the American Farmer.

DEAR SIR:—In compliance with your request, I send the following receipt, which was published some fifteen years back, in the Albany Cultivator, as a cure for Bots—and I would add that many of my neighbours have used it with the most perfect success, frequently relieving the worst cases in five, and generally in less than thirty minutes; it is as follows:—

Take half a pint good wood-ashes, carefully sifted, and put them into a quart bottle, put one pint good vinegar into a pitcher, or other vessel, from which it can be conveniently poured into the bottle, then secure the horse, with head up, mix the dose, and so soon as the effervescence takes place—which, if the articles are good, will be almost instantaneously—turn it down the throat; if it should not relieve in fifteen or twenty minutes, repeat once or twice. I have seldom had occasion to use the second dose.

This recept was one of the many valuable things which I received from paying fifty cents for an Agricultural paper, and if it had been dollars instead of cents, this alone would have paid me, in almost any one of the years that have elapsed since I made the investment.

With many thanks to yourself and numerous correspondents, for the valuable instruction I am monthly receiving, through your paper,

I remain, very respectfully, yours,

JER'H. YELLOTT.

[The testimony of Mr. Yellott, as to the efficacy of the above receipt, should induce every owner of a horse, to preserve it with great care.]—*Ed. A. F.*

EPSOM SALTS.—Can the editor of the Farmer, or any of his correspondents, give any information as to the value of this article as a manure? I have a small lot of it, which I would wish to try, if I thought it would be any service to my land.

A PHILADELPHIA SUBSCRIBER.

Epsom Salts has been frequently used in England, as a manure upon crops of wheat, clover, peas and beans; and we have no doubt it would be equally serviceable to Indian corn, as well as to many other products;—the Sulphuric Acid and Magnesia, which comprise its constituent elements, could but exert a healful office on lands deficient of these substances. From one to two hundred pounds per acre, is about the proper quantity. It may be sown broadcast, or mixed with the farm-yard manure, or formed into compost with peat, marsh mud, woods-mould, road scrapings, &c.

REFORM BILL.—We have received, from the Governor, for publication, a copy of the act passed at the late session of the Maryland Legislature, relative to a convention for reforming the Constitution of the State. The act will be found on our advertising pages.

THE FLOWER GARDEN—APRIL.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

This month, every preparation may be made for the out-door cultivation. After having every thing pruned and transplanted, the borders should be neatly done up for the reception of whatever seeds are to be sown, either annual, biennial or perennial; but be careful and not disturb the ground when too wet, as the plants seldom do so well the whole season thereafter, it causing the soil to become clodded and unfit for the reception of the finer seeds.

Now is the best time to separate and plant out herbaceous plants, of such as can be parted, as Phloxes, Lychnis, Dodecatheons, Hepaticas, Comonolinas, Iris, Penstemons, Chelones, double Rocket, Polyanthus, Auriculas, Daisies, Delphiniums, Aconitums, &c. Amyrillus, Gladiolus and Tuberoses, may be planted out about the middle of the month, if the weather is favorable.

Chrysanthemums may be separated and planted out, singly, choosing the strongest plants for a bloom. Pæonies may be removed, if done early, but much better in the fall.

Dahlias may still be forwarded, and young plants potted, in separate pots, if sufficiently rooted.

The different kinds of ornamental trees and shrubs may yet be planted, such as Magnolia, Chandlerii, Purpurea Acuminata, Pyrus Japonica, tree Pæonies, Deuitzia Scabra, Syringas, double Altheas, &c. Likewise, all the fine evergreens, as Magnolia Grandiflora, Cedrus Deodora, Cryptomeria Japonica, Aurearia Imbricata; Juniperus, Excelsa, Oblonga, Tetragona, Chinensis, Suciana, Cupressus, Pendula, Lambertinia, Thurifera, Disticha, English Yew, Irish Yew, Ilexmadeirensis, Latifolia Varigata, Forsythia Veridisima, Spirea Lindlyana, Taxodium Sempervirens and Mahonia faciculsris, are all beautiful ornamental evergreens for a lawn or cemetery, with the numerous family of the Albies, Pacies, Thuyas, Evergreens of varieties, are all interesting, planted as groups or standards.

The hardy Azaleas are very pretty plants when in flower, they standing the climate, needing no protection, and are equally as showy as the greenhouse tribe, with their flowers of yellow, and mixed with various shades; they are worthy of a place in the garden, especially the Ghent varieties.

Roses, intended for planting out, may now, with safety, be attended to; and to all in the house, give plenty of air, at all times when the weather permits. Repot all such as need it; and cuttings may be still put in with success. Seedlings that are large enough should be put in small pots, and forwarded in a close frame, or otherwise; be careful and fumigate frequently with tobacco, to keep down the green fly, which injures them in bloom. Cactuses will be advanced in their buds, and more water should be given them now than at any other time. Also, Camellias growing will require liberal supplies and frequent syringing over their folinge, as it is very essential to all plants, and destroys the different insects that so much infest houses where little or no moisture can evaporate except from the pots themselves; and by giving plenty of air, the plants will be kept in a more healthy and vigorous state.

All plants in the greenhouse, for spring flowering, should have their proper sized pots, and be neatly tied and trailed to proper supports, thus displaying the taste and skill of the cultivator, as much depends on the form as on the flowers in their general appearance. The Erythine Crista galli, or Coral tree, should be forwarded and put in the border in the course of the month. It is very showy, and makes a beautiful border plant, flowering most of the summer, with its scarlet papilionaceous flowers covering the branches for a considerable length, making it the attraction of most lovers of flowers.

If the borders are prepared, and the soil in a suitable state to sow the different kinds of seeds, they may be put in about the 20th; and all plants in pots, intended for putting out, may be planted out, if favorable. Hyacinths and Tulips, when sufficiently grown, should have neat sticks to support the flower stem, as they are often broke by the wind; tie the string tight to the stake, so as not to slip down, otherwise it falls down and becomes useless, and the labor lost. Stir the soil between the rows, and prepare the bed for bloom next month.

Cuttings may be taken of plants with success, and budding and grafting of most ornamental plants may be done; also, inarching, if required, which is the most successful mode of propagating plants, especially of the Camellia, Rhododendron, and others.

The sowing of flower seeds requires proper attention. Have the border properly prepared, and draw a circle where you intend to sow the seed, about one foot diameter, but a quarter of an inch deep; sow the seed in this circle, and cover very lightly with some fine compost, and place a small stick in the centre, to designate the place; this is far better than dropping the seed all in a bunch, one destroying the other by being too thick; but, as shown, the plants will have more air, grow stronger, and flower more abundantly. There is one fault, and that is very general: seeds are always sown too thick by the inexperienced. One plant will give a finer bloom than if one dozen are crowded together.

N. B. Plants of the fine new evergreens can be supplied by the subscriber. J. FEAST.

To the Editor of the American Farmer.

I was addressed this morning in the street by a friend, who said "what do you mean by saying you raised 86½ bushels of ears of corn upon an acre of drained and subsoiled land; I think such a crop nothing worth bragging about; I can raise that much on my poor land without any expense other than ploughing and manuring a little in the old way; and again, how do you make out to pay all those expenses with one crop and 7 per cent interest for the money." I replied to him that I had never made any statement of the kind, that I had raised 86½ double bushels of ears of sound corn upon an acre of wet cold poor land, that had been drained and subsoiled. "Well I read it in the Delaware Journal." I looked into that paper and found it had been extracted from the American Farmer, Baltimore, who in copying it from the Working Farmer of New York* had omitted the word double.

I wish you to publish this article in order to correct the error, and request all those who have copied from your paper to do the same.

Respectfully, BENJ. WEBB.

Green Hill near Wilmington, Delaware.
3 mo 22, 1850.

*The article in question was extracted second hand from the Working Farmer, and the omission may, or may not, have thus occurred; we cannot lay our hand on the copy from which we printed it. Ed. A. Far.

THE AMERICAN FARMER.

To Correspondents.—We have received, from Jas. Gregorie, Esq., of Christ Church, S. Carolina, two papers "on the best means of guarding against malarious diseases in the low country of the Southern and Western States"—a subject of vital importance to many sections in which our journal circulates. They will certainly appear in our next.

"D." of Georgetown, on rotation of crops, and a communication from our old friend John Jones, of Wheatland, on the formation of a central Society, are crowded out. They shall appear in our next.

"*Whole Truth*," of Balt. Co.; "*Northampton*" "Subscriber," of Camden Del., "Pongoteague" and "Expeaience," were received too late for this No., even if space could have been spared for them. We regret to be compelled to defer their publication until next month.

"A Voice from St. Mary's," in reply to Patuxent Planter, will be found on another page of supplement.

A bill for the increase of the salary of the State Agricultural Chemist, to two thousand dollars, was passed by the Legislature of Maryland, at its late session. The compensation in the original bill, was not in accordance with the duties required of that officer, and we are gratified to find that this measure of liberality at least was extended to the farming interest, by a Legislature which numbered, we believe, a majority of farmers therein. The bill appropriating a small pittance to the funds of the State Agricultural Society, was rejected in the House of Delegates, although a similar grant had very properly been made, but a few weeks before, to the Mechanics' Institute of this city, without a dissenting voice. It is a burning shame to the farmers of Maryland, that such treatment should be borne with. It would seem that any and every interest is sustained more cordially, than that which is universally conceded to be the *great* interest of the State and Nation.

The Sheep Law, prayed for by the State Society, and the farmers of various sections of the State, was also defeated in the House.

Of the Potatoe Rot.—An inquirer asks us whether there is any preventive or cure for the Potatoe rot? We are not aware that there is either the one or the other. Although we have read volumes of essays upon the subject, we have never, as yet, *read* anything that satisfied our mind, either in the form of preventive or remedial means; nor have we seen any array of well defined facts, which were conclusive, in our poor judgment, with regard to the *cause* of the disease; the cause assigned by Dr. Chas. Richardson, approaches nearer than any other; but be the cause what it may, we think the most reliable preventive we have heard of, is to be found in *early planting*. It is now some years since we recommended this course, and have been subsequently pleased to find a very general concurrence in opinion as to its property. With regard to the culture of the potatoe we have nothing to add to what i eontained in our article in the February number of the American Farmer. Besides cultivating the potatoe crop so as to keep down grass and weeds, and admit the free action of sun and air upon the vines, we would occasionally dust them with a compost formed of equal portions of lime, ashes, plaster and salt; using just so much as would whiten the vines. We do *not* reccommend this as a specific; for, to be candid, we have but little, if any faith in nostrums of any kind, and only reccommend this mixture, because we believe that in in each of its constituent elements, the vines and tubers would find congenial food; and, because, in our practice we have found benefit from such topical applications.

CHAPPELL'S FERTILIZER.

TO THE FARMERS OF MARYLAND.

Batimore, March, 1850.

In again calling your attention to the *chemical compound* known as "Chappell's Fertilizer," we feel it our privilege to state that nothing has occurred to alter our opinion as to the universal adaptation of this manure to *all crops* and *to all soils* suitable for cultivation. The experience of the past season has fully confirmed and demonstrated these conclusions to be correct; for we have found, that, in *all cases* where the article has been applied in *sufficient quantity*, and under circumstances favorable for its action, the result has been largely increased crops, of whatever article to which it has been applied. The parties thus using it, have evinced their continued confidence, by purchasing it again and again.

Owing to the long continued, and far extended drought which prevailed last year, together with the unusual backward season, in some sections of our State, many experimenters were disappointed in the results; however, *the fact*, that wherever it was used, and the weather at all favorable for the crop, *it did act well*, is, in our estimation, conclusive proof that the only circumstances necessary to secure success, are *suitable weather, proper application and used in sufficient quantity*.

Our sales last fall were large, for the *wheat crop*, and, as far as we are informed, its effect has produced a very decided opinion in its favor. The wheat bids fair for a very large yield, fully equal, from present appearance, to wheat where guano had been used; in some cases, we are informed, the wheat *looks better* from the use of the Fertilizer. One advantage we can promise, that, at an *equal amount* of outaly, to give as much grain, and a *much larger* yield of clover, than can be obtained from the use of guano.

We now refer to *all* those who used it last fall on wheat. We also annex some additional certificates and letters of recommendation from those who used it last year, on *corn, oats potatoes, &c.* We refer also to the certificates before published. Now, if *we give you the same article* which others have used with such signal success, can you tell us why it will not act as beneficially and successfully with you as with others?

We can refer to respectable farmers who consider it decidedly *cheaper* to purchase *our Agricultural Salts* than to haul manure from their barn yard: and when we consider the small quantity to be spread over an acre, and the labor of hauling and spread-

ing a sufficient quantity of stable manure to give the same fertility to the soil we cannot be surprised that such should be their opinion. One farmer, 5 miles from the city, who kept a team of 4 horses for the purpose of hauling stone to the city, and taking *stable manure* for his return load, has become so fully satisfied of this fact, that he has sold his horses and wagon, and now uses our fertilizer.

As a *top dressing* on *wheat* or *rye*, it should be *put on early*, if intended to improve the grain. If the barren spots be dressed, *at any time*, if it does not increase the grain, it will certainly very largely increase the crop of clover, and thus repay for the cost.

We have the names of several gentlemen who applied it, last year, on the barren spots in their fields of wheat, too late to benefit the grain, but not too late to set such portions beautifully in clover. They inform us, that where the Salts was used, there is three or four times as much clover as on any other portion of the field. We have also the satisfaction of knowing that wherever it had been used for *wheat* harvested last year, the clover set finely, and the crop bids fair (though the land, in many cases, was very poor), when turned under, to give a fine succeeding crop, without any additional manure. On *clover* and *grass*, it may be applied at any time. *Oats*, to secure a good yield of grain, should be got in as early in the spring as the weather will permit; as soon as the land is ploughed and properly harrowed, apply the Salts, using 3 to 600 lbs. per acre, according to the quality of the land. If *clover* is to be sown with the oats, not less than 2 barrels should be used to the acre. If got in *in time*, and thus dressed, the effect, both on the oats and clover, will surprise you. For the *corn crop*, we would advise a heavy dressing, particularly if the same land is to be put down in wheat. It should be put on as soon after ploughing as possible; let it thus remain until you are ready to harrow, preparatory to the running out the furrows for dropping your corn. This early application gives the Salts an opportunity of being dissolved by the April rains, and, being thus prepared, to be absorbed by the roots. The corn, from the first, will grow finely. If preferred, a small portion may also be used in the hill. If 2 barrels has been used to the acre, the same ground may be seeded in wheat in the fall, with a fine prospect of a good crop. One gentleman who used the Fertilizer on *corn*, in 1848, put in 3 barrels per acre on a *very poor* piece of land, his crop of corn was surprisingly large. The same land, without any additional manure, was put down in wheat and timothy, and, in the spring, clovered. The crop of wheat was not less than 20 bushels per acre, on a 5 acre field, and the whole is now beautifully set in timothy and clover. Will not the *same article*, if applied in the *same quantity*, and the weather should prove equally favorable, produce the same result? We say yes! No *philosophical reason* can be given why it will not. "The *same cause*, under the *same* circumstances, will always produce the *same* results," is a truism all will admit.

For *potatoes*, besides a liberal dressing, broadcast, drop a small portion in the furrow or near the seed. With potatoes, as with most other crops, he who uses the *most manure*, and attends to their proper cultivation, will succeed best. See Mr. Spencer's letter.

On *garden vegetables*, *turnips*, &c., the Salts have been used with great success. One gentleman, in this city, told us that he never could get beets to grow in his garden until he used the fertilizer. Several gardeners, near the city, experimented, last year, with great success, and continue to use it.

For *buckwheat*, there cannot be a better article applied. The experiments last year fully confirmed this opinion. Two barrels will give a much larger crop than if one only is applied. This additional yield will more than pay the difference in cost.

For restoring "*worn-out land*," the object should be to get it *set in clover as soon as possible*; for this purpose, let the land be well and deeply ploughed, and, if possible, cross ploughed, well harrowed, and dressed with not less than two barrels of the Salts, per acre, and set in *small grain*, and clover seed sown; if *oats*, as before remarked, they should be got in early—not later than 15th April. It is well known, by experienced farmers, that clover is not so likely to set well if sown with a spring crop as if sown on wheat. One reason for this is that, in the latter case, the clover seed is sown much earlier. However, if got in sufficiently early, there is a fair chance for a good crop of clover, even if sown with oats. When in clover, whether on spring or fall sown grain, let *all the clover that grows be returned to the soil*, by ploughing it under, the second or third year. The practice of mowing or pasturing only robs you of the very material which *is to renovate your soil*. A soil naturally good, let it be ever so poor or destitute of vegetable matter, or ability to sustain a crop, if thus treated, will convince any man, who will try the experiment, that land of this description can be renovated or restored to fertility by this process, cheaper and sooner than by any other.

We have, been frequently surprised to find that, notwithstanding the advice always given, to use the Salts liberally, frequently they are applied, when two barrels should be used, only at the rate of one barrel or a barrel and a half per acre. Those who have been the most *successful* in their experiments have been those who used it with a liberal hand; and while they have found it *more profitable* the first crop, they have discovered the great advantage this course of procedure has been to their soil, in immediately restoring it to a fine state of fertility.

The sanguine opinions advanced above are formed from frequent intercourse with farmers who have used the Salts. All the *facts stated*, we can furnish the proof, if necessary, though the gentlemen alluded to do not wish their names published; sufficient new certificates are given, which, added to those already published, fully to confirm the statements we have made, and show that the Fertilizer *is not a humbug*, (as it has been pronounced by some who know nothing about it) but that *it is a valuable manure*, and bids fair to yield a good profit to all those who may be disposed to try its efficacy.

ADDITIONAL TESTIMONY.

DR. CHAPPELL:—I expermented with your *Agricultural Salts*, with satisfactory results, and cheerfuly furnish you with a statement of my experience:

In the Spring of 1848, I had a lot of about 4½ acres, which I intended for *corn;* I concluded to try two barrels of your salts, and applied it before harrowing. On the other portion I used 1,000 lbs. of the best Peruvian Guano, or about 300 lbs. to the acre. The Corn was planted in good season, and the whole field promised me a fine crop of corn. About the middle of July, I discovered that the corn on the portion to which I had applied the *Guano*, began to "*firs;*" and the corn on the part of the lot on which

the salts had been used, got the start, and grew at least twelve inches higher than the other part of the lot; it remained green and thrifty to the last, and yielded more corn decidedly than any other part of the field.

I also sowed *Pumpkins* on the whole lot, and singular to relate, did not get a sound Pumpkin off the part where I had used the Guano. Where I used your salts, they grew finely, not one decayed. I took off at least three cart loads, as fine Pumpkins as any person could wish to see.

The same lot was seeded with *Oats*, in the Spring of 1849. I soon after left the farm, and removed to the city,—I was told afterwards, by the gentleman who purchased the place, that the *oats* were at least one-third greater yield per acre, where your fertilizer was used, than on the part to which the Guano was applied.

EDWARD CLAYTON,
Baltimore, March 1st. Pratt street.

Mr. Isaac Tyson, Jr., of this city, purchased, last Spring, twenty-four barrels of the fertilizer, which was used by Mr. Owen Reisler, for trial, the result was as stated, an increase of fourteen bushels of corn per acre. One acre was measured as the average yield, as will be seen from his letter below. Thus giving for the twenty-four barrels used, an increase of 336 bushels corn.

Brick-Meeting House, January 15th, 1850.

Dr. Chappell:—I have used your fertilizer on Isaac Tyson, Jr.'s farm, in Baltimore County, in the following manner:—After the corn ground was ready for harrowing, I strewed 300 lbs. per acre, just before harrowing; *I received fourteen bushels of corn more*, from *one acre*, than where there was none put. I shelled and measured the corn, on this acre on the ground, so there can be no mistake. I bought several lots for my neighbors, in the fall, who have put it on their wheat, and say, it looks well and bids fair for a fine crop.

Yours, &c. OWEN REISLER.

So well satisfied was Mr. Tyson with the result, as reported to him by Mr. Reisler, that he purchased in the fall, largely for his *wheat crop*, and we expect to sell him a large lot this Spring, *for corn and oats*.

The following letter from *Dr. John S. Reese*, well known to many farmers in this State, speaks for itself.

Baltimore, January 5th, 1850.

Dr. P. S. Chappell,—*Dear Sir*:—Mr. Richard Cromwell, my son-in-law, used ten barrels of your "Fertilizer," on six acres of *very light* and *unproductive land*, on which he sowed *oats*; the neighbors say that, without the Fertilizer it would not have produced oats that would have paid for the trouble of culture; the yield, however, with the application of that article, was very good, equal, if not superior to any in the neighborhood,—and there is now a *fine promise of a handsome yield of clover*.

He also used the Fertilizer, broadcast, on *corn*, with decided good result. We think well of the article, and shall try it again more fully, early in the Spring.

Yours, very sincerely, JOHN S. REESE.

Hayland, January 5th, 1850.

Dear Sir:—I am so well pleased with your *Fertilizer*, I intend to continue its use; this is the best recommendation you can desire. For the particular experiments made, I refer you to Mr. N. Dorsey, Mather's store, Howard district, Maryland.

Truly, yours, J. H. KEENE.

To Dr. P. S. Chappell.

Mr. John H. Keene, formerly did business on Light st. wharf, and is well known to many farmers, on the Bay Shore.

Havre de Grace, March 5th, 1850.

Dr. P. S. Chappell:—My experiment with your Fertilizer, on *oats*, last spring, though on a small scale, was very satisfactory. I used a barrel on *two acres of poor land*,—a similar two acres I applied 1½ barrels of Patagonia Guano, to which I added *plaster*. The product was about equal on each lot of ground. From the above experiment, I was induced to get of you, last fall, thirty-seven barrels for wheat, and should it act as well on *wheat*, as on *oats*, I shall continue to use it. I likewise used some Guano on wheat, last fall, at an equal cost per acre, whereby I shall know which is best. The result I will make known to you.

P. S.—The oats started off, and grew a foot decidedly in favor of your salts, but there being so small a quantity applied to the acre, it could not hold out to the end, as it stalked.

Very repectfully. J. A. GOVER.

It will be observed from the above, that Mr. Gover used but a quarter the quantity which should have been applied; had he used it at the rate of two barrels, on as "poor land" as he describes his to be, the result would have been very different. We are surprised that *so small* a quantity used, should have produced oats, one foot taller than the Guanoed oats, used too, at the rate the Guano was. We should have expected the reverse. This experiment, though small, speaks well for the fertilizing properties of our salts on oats.

The following is from the "*Centreville Times*," of the 10th of November last:—

Chappell's Salts.—Mr. Stephen J. Bradley, who tried the Chappell Salts upon his corn crop the present season speaks in the highest terms of the result.

The results of the present season from the use of the Chappell salts in Queen Ann's county, have been quite various.—In some parts the most flattering returns in crops have been given, and in others they have failed to remunerate the farmer for his outlay. The season it is well known was most unpropitious on account of the drought, and all manures failed of their intended effect where applied late in the Spring. Guano, both Peruvian and African, as well as Poudrette and Baltimore wood ashes applied to the Editor's corn crop in May last, failed entirely to benefit the crop, while the Chappell Salts applied to his Oat crop in March or early part of April gave a fine return.

The following letter was received from John B. Spencer, Esq., editor of the Centreville Times, accompanied with a specimen of the potatoes:—

Centreville, Queen Ann's Co., E. S. Md.
November 26th, 1849.

Dr. Chappell,—*Dear Sir*:—Permit me to present you with sixteen Nova Scotia (Irish) potatoes, which

make a heaping half bushel; you will find them a very fine table variety.

Although I ascribe their unusual growth, in a great measure, to *your Fertilizing Salts*, yet I take some small share of credit for their excellency of cultivation. The same kind of potatoes dressed with Peruvian Guano, and grown along side of those sent to you, did not measure so large by a third.

Yours, respectfully, JOHN B. SPENCER.

P. S.—Be kind enough to present Mr. Sands, of the American Farmer, a peck of them.

I have the names of several farmers who used the salts on *potatoes* with great success. Potatoes require good land, and attention. We would not depend on the salts alone for a crop, in an impoverished soil, though they would be of benefit, even under such an application. A dressing, broad-cast, and in the furrows, as recommended before, on land of tolerable strength, if the season for the crop is good, will greatly increase the yield, and be found to be a profitable manure; while the potatoes will be much improved in quality and flavor. We notice in the experiment of Mr. Spencer, that the potatoes were one-third larger from the use of our salts, than form Peruvian Guano.

Bel-Air, February 19th, 1850.

Dr. P. S. Chappell:—I received your favor of 6th instant, and must ask your pardon for my seeming neglect in not writing to you sooner, in regard to the results attending the use of your fertilizer on my corn. I fear I may be deemed too sanguine, but indeed I have not the slightest doubt in my mind, that it is far cheaper and more beneficial in lasting effect than Guano; being applied much easier, and greatly less offensive to the operator. What I bought of you in May, 1849, was applied on a heavy clay soil, on the *top of a hill*, and the land had been in corn the year before; thus it had the two disadvantages, in want of sod or grass lay, and a drought to contend with. The course I pursued was this, in a six acre field, *hill-side and hill*, I hauld out on half of the field, and endeavored to put to the acre, on the hill-side, six three horse wagon loads of compost of unleached ashes, one-third lime, (used in cooking house, for the purpose of my Paper Mill,) one-third, and wood-pile, and rich earth scrapings, old leather, waste straw, &c., one-third, making it have the advantage of decomposed vegetable matter, and lime, and ashes, and animal substance, ready for the crop. On the other half of field, the *hill-top*, I put one barrel of your fertilizer to the acre, and ploughed the manure in, and harrowed the ground; I then crossed it and planted the corn. In the first manured piece, owing to rain and other mischances, there were two weeks lost before I could put in the corn on the part of field on which the fertilizer was applied; the corn on the *hill-side* was up, and had a warm western exposure, and grew off, but did not look near so green, or show so thick a stalk, as your fertilizer produced when it came up. The first planted corn kept ahead of the fertilizer, owing to warm exposure, until the hot days set in, and the drought came on, then the fertilized corn, though two weeks later eared out finely, and kept its dark flourishing green look long after the other had paled in color. The produce in both pieces, were the same, as near as may be judged, having been estimated at from eight to ten barrels per acre; excellent, certainly, for *second crop corn*, well grained and perfect to the end of the cob.

I have not the slightest hesitation in saying, that if the "fertilized" corn had the same western exposure, and the advantage of two weeks lost, instead of a due north exposure, *it would have been the best of odds*. Then, look at the labor saved, and the cost of application; the six loads, from 250 to 300 bushels, cost more in hauling and spreading, than the purchase and application of the fertilizer. I also put the fertilizer where I could not, then, have hauled the heavy loaded wagon—therefore I gave it the *highest and coldest* place to work on, and nobly did it work—and I intend, next May, to give it a *hill-side* field, with sod to work on by itself, with the firm reliance in its faithful performance of all you have said about it in your circular.

Yours, respectfully, R. W. WHALAND.

N. B.—I forgot to state, that I can see the fertilizer acting yet, and design sowing oats on the same ground without any other manure, and do so in confidence of a good crop. Yours, &c., R. W. W.

Note—had Mr. Whaland used two barrels to the acre, instead of one, as stated, his prospect for the second crop on "the same land," would be much better, and if he intends to *clover* the oats he purposes to sow this spring, I would advise him to put on another barrel to the acre—leaving "a land" to show the difference.

☞ Having ploughed in the salts, to some extent, prevented the ill effects of the drought.

Sheriff's office, Queen Ann's Co, Feb., E. S. M.

Last spring, I purchased four Barrels "Chappell's Fertilizer" which I applied to my Corn, using a *pint* to *two* Hills of Corn, (using the Common tin cup for a pint Measure,) after I had planted my Corn, it came up and stood well, and grew finely, with a beautiful appearance, and a prospect of a heavy Crop, when the drought set in (which you remember was very severe in this section of the Country,) when it failed very much, notwithstanding, the Corn *did not fire* or burn much, but very little, and I raised a good Crop—the land being ordinary.

I commenced applying the Fertilizer where I left off spreading Compost, and barn-yard Manures. Several of my neighbors called to see the Crops (knowing I had tried the Fertilizer as an experiment.) They pronounced the Crop best where I had applied the Fertilizer.

Respectfully.

S. J. BRADLEY.

Mr. Bradley's experiment tells well for the Fertilizer on Corn, particularly, as it was only used in small quantity, and had to contend with the drought. Had the weather, turned out good to the end of his experiment, no question, the result would have been much more conclusive. Nor can any crop be large, manured or not manured, unless there is sufficient rain for its vigorous growth. Mr. Spencer found the Salts highly, benificial to his Oat crop, put in before the first of April, while all other manures, (as will be seen by the extract from his paper) failed on his Corn, put in some time in May.

In conclusion we will remark that, though we recommend the Fertilizer to be used as early in the season as possible, we do so, to be more certain as

curity, to some extent, against drought; applied in ng, or when the Corn was planted, its results, last ar, were highly gratifying wherever used, and weather suitable;—or such as to give any ance for the Crop to be a good one.

Should any farmer not be able to supply himself th the article, in time for its early application, he uld not therefore defer the experiment, even er the Oats are in, or the Corn planted, he will the Season should prove propitious, find his vantage in so doing.

All we ask, is that every farmer will try it for nselves, if doubtful of its efficacy, try only a small antity,—it is to the "Practical results" of experents we rely for sustaining the reputation of the arle, and its introduction into general use. One ccessful experiment, is of more benefit to the farer, individually, in the way of improving his ricet, than all the theories ever written.

Other letters of recommendation will be published hereafter.

If we did not *conscientiously believe all the statements* de herein to be true, and that money invested in *Fertilizer is well laid out*, and the farmer every ance for a large return for his outlay, we can assure you we would not thus write, but would at once ndon its manufacture.

Before concluding, we think it proper and necessy, in self defence, to state, that the success which attended the use of *our Fertilizer* has induced atmpts at imitation. *Any representation that said artie is the same, or contains the same constituents, is false, we are secured by Letters Patent in several of the t important ingredients that enter into the compound, d no one dare infringe upon, or they will be held ac*ntable.

P. S. CHAPPELL,
W. H. CHAPPELL.

rice, $3 per barrel of 300 lbs.

TERMS,

ash on Delivery; or, approved City acceptances for sums over $50.

☞ OFFICE, CORNER OF HANOVER AND LOMBARD STREETS, up stairs.

ap1 1t

AN ACT.

AN ACT to provide for the taking the sense of the people upon the expediency of calling a Convention, to frame a new Constitution and form of government for this State, and to provide for the election of Delegates to such Convention.

Section 1. Be it enacted by the General Assembly of Maryland, That for the purpose of ascertaining the will of the people of this State, as to the expediency of calling a Convention of Delegates to be elected by the people to frame a new Constitution and form of Government, except so far as regards the rights and relations existing between master and slave, as now established and sanctioned by the Constitution and Form of Government of this State, it is hereby recommended to the legal voters of the State, that on the second Wednesday of May, eighteen hundred and fifty, and at the same places where county and city elections are now held, that every person entitled to vote in the election of Delegates to the General Assembly, shall vote with reference to the question proposed by this act, by expressing in writing or in printed form on the ballot he may cast, the words "For a Convention," or the words "Against a Convention," as the case may be, and in case there should be any ballots without the designation hereinbefore prescribed, the same shall not be counted either for or against a convention, but a separate return of the same shall be made by the judges of election as aforesaid. And it is also provided that the sheriffs of the several counties, of Howard district, and of the city of Baltimore, shall give notice of the day on which, under the provisions of this act, the people are recommended to assemble to vote for, or against the said convention, in the same manner as notice is now given of the election of Delegates to the General Assembly.

Sec. 2. And be it enacted, That it shall be the duty of the several judges of election of this State, to receive, accurately count, and duly return the number of ballots so cast, to the several clerks of the county courts of this State, as the same are now required to be returned in the election of members to the House of Delegates, and the several clerks aforesaid shall make a return to the Governor within ten days after said election, the number of ballots given for or against the call of a Convention, and the number of blank ballots cast, in the same manner as they return the number of ballots for the Governor of this State; and the laws regulating the returns for the said Governor, shall regulate, govern and apply to the vote recommended to be taken by the provisions of this act, and a judge or judges of the election failing to comply with the provisions of this act, shall be liable to the same penalties as he or they would be by the non-compliance with the existing laws of this State.

Sec. 3. And be it enacted, That as soon as the Governor shall receive the returns of the number of ballots cast in this State, for or against a Convention, and blank ballots cast, it shall be the duty of the Governor, Chancellor of the State and the Chief Judge of the Court of Appeals, or a majority of them, to proceed to count and cast up the same; and if, upon counting and casting up the returns as made to him by the judges of election as hereinbefore prescribed, it shall appear to the Governor, Chancellor and Chief Judge of the Court of Appeals, or a majority of the said officers, that a majority of legal votes of the State are in favor of a call of a Convention, the Governor shall issue his proclamation ordering an election to be held in the several counties and the city of Baltimore, on the first Wednesday of September, eighteen hundred and fifty, for Delegates to the Convention to frame a new Constitution and Form of Government, in such manner and under such regulations as are hereinafter provided. Provided, That if the Chancellor and Chief Judge shall refuse to act, then the Governor shall alone proceed to discharge the duties specified in this section.

Sec. 4. And be it enacted, That at the election to be held for delegates to the Convention, as prescribed in the third section of this act, the legal voters shall proceed by ballot to elect Delegates to the Convention, whose qualifications shall be the same as those now required for a seat in the House of Delegates, and each county and city of Baltimore shall be entitled to the same number of delegates to the Convention as they now have respectively in both Houses of the General Assembly of Maryland. And it is also provided, that the sheriff of each county, of Howard District, and of the city of Baltimore, shall give notice, that the vote is to be taken as to a convention, as hereinbefore provided for, by publication at least once a week for three weeks before the period fixed by the provisions of this act for the holding of the same.

Sec 5. And be it enacted, That the laws relating to the election of delegates to the General Assembly shall in all respects govern and apply to the election of delegates to the said Convention. And the said Convention shall determine on the validity of the election, and the qualification of its members.

Sec. 6. And be it enacted, That the Convention assembling in accordance with the call of the people and his act of Assembly, shall meet at the city of Anna-

make a heaping half bushel, you will find them a very fine table variety.

Although I ascribe their unusual growth, in a great measure, to *your Fertilizing Salts*, yet I take some small share of credit for their excellency of cultivation. The same kind of potatoes dressed with Peruvian Guano, and grown along side of those sent to you, did not measure so large by a third.

Yours, respectfully, JOHN B. SPENCER.

P. S.—Be kind enough to present Mr. Sands, of the American Farmer, a peck of them.

I have the names of several farmers who used the salts on *potatoes* with great success. Potatoes require good land, and attention. We would not depend on the salts alone for a crop, in an impoverished soil, though they would be of benefit, even under such an application. A dressing, broad-cast, and in the furrows, as recommended before, on land of tolerable strength, if the season for the crop is good, will greatly increase the yield, and be found to be a profitable manure; while the potatoes will be much improved in quality and flavor. We notice in the experiment of Mr. Spencer, that the potatoes were one-third larger from the use of our salts, than form Peruvian Guano.

Bel-Air, February 19th, 1850.

DR. P. S. CHAPPELL:—I received your favor of 6th instant, and must ask your pardon for my seeming neglect in not writing to you sooner, in regard to the results attending the use of your fertilizer on my corn. I fear I may be deemed too sanguine, but indeed I have not the slightest doubt in my mind, that it is far cheaper and more beneficial in lasting effect than Guano; being applied much easier, and greatly less offensive to the operator. What I bought of you in May, 1849, was applied on a heavy clay soil, on the *top of a hill*, and the land had been in corn the year before; thus it had the two disadvantages, in want of sod or grass lay, and a drought to contend with. The course I pursued was this, in a six acre field, *hill-side and hill*, I hauld out on half of the field, and endeavored to put to the acre, on the hill-side, six three horse wagon loads of compost of unleached ashes, one-third lime, (used in cooking house, for the purpose of my Paper Mill,) one-third, and wood-pile, and rich earth scrapings, old leather, waste straw, &c., one-third, making it have the advantage of decomposed vegetable matter, and lime, and ashes, and animal substance, ready for the crop. On the other half of field, the *hill-top*, I put one barrel of your fertilizer to the acre, and ploughed the manure in, and harrowed the ground; I then crossed it and planted the corn. In the first manured piece, owing to rain and other mischances, there were two weeks lost before I could put in the corn on the part of field on which the fertilizer was applied; the corn on the *hill-side* was up, and had a warm western exposure, and grew off, but did not look near so green, or show so thick a stalk, as your fertilizer produced when it came up. The first planted corn kept ahead of the fertilizer, owing to warm exposure, until the hot days set in, and the drought came on, then the fertilized corn, though two weeks later eared out finely, and kept its dark flourishing green look long after the other had paled in color. The produce in both pieces, were the same, as near as may be judged, having been estimated at four eight to ten barrels per acre; excellent, certainly, for *second crop corn*, well grained and perfect to the end of the cob.

I have not the slightest hesitation in saying, that if the "fertilized" corn had the same western exposure, and the advantage of two weeks lost, instead of a due north exposure, *it would have been the best by odds*. Then, look at the labor saved, and the cost of application; the six loads, from 250 to 300 bushels, cost more in hauling and spreading, than the purchase and application of the fertilizer. I also put the fertilizer where I could not, then, have hauled the heavy loaded wagon—therefore I gave it the highest and *coldest* place to work on, and nobly did it work—and I intend, next May, to give it a *hill-side* field, with sod to work on by itself, with the firm reliance in its faithful performance of all you have said about it in your circular.

Yours, respectfully, R. W. WHALAND.

N. B.—I forgot to state, that I can see the fertilizer acting yet, and design sowing oats on the same ground without any other manure, and do so in confidence of a good crop. Yours, &c., R. W. W.

Note—had Mr. Whaland used two barrels to the acre, instead of one, as stated, his prospect for the second crop on "the same land," would be much better, and if he intends to *clover* the oats he purposes to sow this spring, I would advise him to put on another barrel to the acre—leaving "a land" to show the difference.

☞ Having ploughed in the salts, to some extent, prevented the ill effects of the drought.

Sheriff's office, Queen Ann's Co, Feb., E. S. Md.

Last spring, I purchased four Barrels "Chappell's Fertilizer" which I applied to my Corn, using a *pint* to *two* Hills of Corn, (using the Common tin cup for a pint Measure,) after I had planted my Corn, it came up and stood well, and grew finely, with a beautiful appearance, and a prospect of a heavy Crop, when the drought set in (which you remember was very severe in this section of the Country,) when it failed very much, notwithstanding, the Corn *did not fire* or burn much, but very little, and I raised a good Crop—the land being ordinary.

I commenced applying the Fertilizer where I left off spreading Compost, and barn-yard Manures. Several of my neighbors called to see the Crops (knowing I had tried the Fertilizer as an experiment.) They pronounced the Crop best where I had applied the Fertilizer.

Respectfully.
S. J. BRADLEY.

Mr. Bradley's experiment tells well for the Fertilizer on Corn, particularly, as it was only used in small quantity, and had to contend with the drought. Had the weather, turned out good to the end of his experiment, no question, the result would have been much more conclusive. Nor can any crop be large, manured or not manured, unless there is sufficien rain for its vigorous growth. Mr. Spencer found the Salts highly, benificial to his Oat crop, put in before the first of April, while all other manures, (as will be seen by the extract from his paper) failed on his Corn, put in some time in May.

In conclusion we will remark that, though we recommend the Fertilizer to be used as early in the season as possible, we do so, to be more certain as

curity, to some extent, against drought; applied in ay, or when the Corn was planted, its results, last r, were highly gratifying wherever used, and e weather suitable;—or such as to give any nce for the Crop to be a good one.

Should any farmer not be able to supply himself th the article, in time for its early application, he uld not therefore defer the experiment, even er the Oats are in, or the Corn planted, he will the Season should prove propitious, find his vantage in so doing.

All we ask, is that every farmer will try it for mselves, if doubtful of its efficacy, try only a small antity,—it is to the "Practical results" of experents we rely for sustaining the reputation of the arle, and its introduction into general use. One ccessful experiment, is of more benefit to the farer, individually, in the way of improving his cket, than all the theories ever written.

Other letters of recommendation will be pubhed hereafter.

If we did not *conscientiously believe all the statements* de herein to be true, and that money invested in e *Fertilizer is well laid out*, and the farmer every nce for a large return for his outlay, we can asre you we would not thus write, but would at once ndon its manufacture.

Before concluding, we think it proper and necesy, in self defence, to state, that the success which attended the use of *our Fertilizer* has induced atpts at imitation. *Any representation that said artiis the same, or contains the same constituents, is false, we are secured by Letters Patent in several of the important ingredients that enter into the compound, ich no one dare infringe upon, or they will be held ac*table.

P. S. CHAPPELL,
W. H. CHAPPELL.

rice, $3 per barrel of 300 lbs.

TERMS,

ash on Delivery; or, approved City acceptances for sums over $50.

☞ OFFICE, CORNER OF HANOVER AND LOMBARD STREETS, up stairs.

ap1 1t

AN ACT.

AN ACT to provide for the taking the sense of the people upon the expediency of calling a Convenon, to frame a new Constitution and form of govrnment for this State, and to provide for the elecon of Delegates to such Convention.

Section 1. Be it enacted by the General Assembly Maryland, That for the purpose of ascertaining the se of the people of this State, as to the expediency calling a Convention of Delegates to be elected by people to frame a new Constitution and form of vernment, except so far as regards the rights and tions existing between master and slave, as now ablished and sanctioned by the Constitution and m of Government of this State, it is hereby recomnded to the legal voters of the State, that on the ond Wednesday of May, eighteen hundred and fifty, at the same places where county and city elections now held, that every person entitled to vote in the ction of Delegates to the General Assembly, shall e with reference to the question proposed by this by expressing in writing or in printed form on the ot he may cast, the words "For a Convention," or the words "Against a Convention," as the case may be, and in case there should be any ballots without the designation hereinbefore prescribed, the same shall not be counted either for or against a convention, but a separate return of the same shall be made by the judges of election as aforesaid. And it is also provided that the sheriffs of the several counties, of Howard district, and of the city of Baltimore, shall give notice of the day on which, under the provisions of this act, the people are recommended to assemble to vote for, or against the said convention, in the same manner as notice is now given of the election of Delegates to the General Assembly.

Sec. 2. And be it enacted, That it shall be the duty of the several judges of election of this State, to receive, accurately count, and duly return the number of ballots so cast, to the several clerks of the county courts of this State, as the same are now required to be returned in the election of members to the House of Delegates, and the several clerks aforesaid shall make a return to the Governor within ten days after said election, the number of ballots given for or against the call of a Convention, and the number of blank ballots cast, in the same manner as they return the number of ballots for the Governor of this State; and the laws regulating the returns for the said Governor, shall regulate, govern and apply to the vote recommended to be taken by the provisions of this act, and a judge or judges of the election failing to comply with the provisions of this act, shall be liable to the same penalties as he or they would be by the non-compliance with the existing laws of this State.

Sec. 3. And be it enacted, That as soon as the Governor shall receive the returns of the number of ballots cast in this State, for or against a Convention, and blank ballots cast, it shall be the duty of the Governor, Chancellor of the State and the Chief Judge of the Court of Appeals, or a majority of them, to proceed to count and cast up the same; and if, upon counting and casting up the returns as made to him by the judges of election as hereinbefore prescribed, it shall appear to the Governor, Chancellor and Chief Judge of the Court of Appeals, or a majority of the said officers, that a majority of legal votes of the State are in favor of a call of a Convention, the Governor shall issue his proclamation ordering an election to be held in the several counties and the city of Baltimore, on the first Wednesday of September, eighteen hundred and fifty, for Delegates to the Convention to frame a new Constitution and Form of Government, in such manner and under such regulations as are hereinafter provided. Provided, That if the Chancellor and Chief Judge shall refuse to act, then the Governor shall alone proceed to discharge the duties specified in this section.

Sec. 4. And be it enacted, That at the election to be held for delegates to the Convention, as prescribed in the third section of this act, the legal voters shall proceed by ballot to elect Delegates to the Convention, whose qualifications shall be the same as those now required for a seat in the House of Delegates, and each county and city of Baltimore shall be entitled to the same number of delegates to the Convention as they now have respectively in both Houses of the General Assembly of Maryland. And it is also provided, that the sheriff of each county, of Howard District, and of the city of Baltimore, shall give notice, that the vote is to be taken as to a convention, as hereinbefore provided for, by publication at least once a week for three weeks before the period fixed by the provisions of this act for the holding of the same.

Sec 5. And be it enacted, That the laws relating to the election of delegates to the General Assembly shall in all respects govern and apply to the election of delegates to the said Convention. And the said Convention shall determine on the validity of the election, and the qualification of its members.

Sec. 6. And be it enacted, That the Convention assembling in accordance with the call of the people and his act of Assembly, shall meet at the city of Anna-

polis, on the first Monday of November, eighteen hundred and fifty, and the said Convention shall continue in session from day to day until the business for which they have been convened, shall be fully completed and finished; and the compensation of the Delegates to the said Convention shall be four dollars a day and the mileage now allowed by law to members of the House of Delegates; and the said Convention shall have power to appoint such clerks and other officers as may be deemed necessary to facilitate the transaction of the business of the Convention, and to fix their compensation; and that the Treasurer of the State of Maryland shall pay upon the order of the President of the said Convention, to each member thereof, the said sum of four dollars per day, and the mileage now allowed by law to the members of the House of Delegates, as herein provided; and shall also pay to the said clerks or other officers, upon the order of the said President, such compensation as the said Convention shall determine to allow.

Sec. 7. And be it also enacted, That if any vacancy or vacancies occur by death, resignation or otherwise, in either of the delegations hereinbefore provided for, either before or after the qualification of said delegates, the sheriff of the county, Howard District, or Baltimore city, in whose delegation such vacancy or vacancies may occur, shall upon information thereof by said delegation, by the President of said Convention, or by the Governor of the State, immediately issue public notice for a special election to be held at the usual places for holding elections in said county, Howard district, or Baltimore city, in not less than five nor more than ten days after said notice, for the purpose of supplying said vacancy or vacancies.

Sec. 8. And be it enacted, That the constitution reported and adopted by the convention assembled as aforesaid, shall on the 1st Wednesday in June, eighteen hundred and fifty one, be submitted to the legal and qualified voters of this State, for their adoption or rejection, and the voters shall on their ballots, plainly designated, express the assent or dissent to the adoption of the Constitution, submitted to them by the following words, written or printed on their ballots, to wit: "For the new constitution," or "against the new constitution," which said ballots shall be counted by the judges of the election, and the number of ballots given for or against the adoption of the said constitution submitted to the people by the convention, shall be returned to the Governor of the State of Maryland, by the clerks aforesaid, within thirty days after the time of holding the election, and in case there shall be any ballots without the designation hereinbefore prescribed, the same shall not be counted either for or against the adoption of the constitution, but a separate return of the same shall be made by the judges of election as aforesaid.

Sec. 9. And be it enacted, That in case of the refusal or neglect of the judges of the election in any of the counties of this State, or the city of Baltimore, or Howard District, to make the return of the votes cast for or against the adoption of the new constitution, in their respective counties, the city of Baltimore or Howard District, such judge or judges so refusing or neglecting, shall be liable to the penalty and forfeiture of the sum of five hundred dollars, to be recovered by presentment by the Grand Jury of the county, city or district in which said judge or judges reside, and on a conviction of such judge or judges for neglecting or refusing to make the return of the number of votes given for or against the adoption of the said constitution as aforesaid, he or they shall in the discretion of the court before whom his or their conviction may be had, be subject also to imprisonment in the county jail for the space of thirty days.

Sec. 10. And be it enacted, That any Senator or Representative in Congress, or State Senator, or any civil officer of the State or United States, residing within the limits of the State of Maryland, for twelve months next preceding said election, or members of the House of Delegates, shall be eligible to a seat in the Convention to assemble as hereinbefore prescribed, without affecting the tenor of their respective offices.

Sec. 11. And be it enacted, That when the Governor shall receive the returns of the number of ballots cast in this State, for the adoption or rejection of the Constitution submitted by the Convention to the people, and if upon counting and casting up the returns made to him by the judges of election as hereinbefore prescribed, it shall appear that a majority of the legal voters of the State, are in favor of the adoption of the said Constitution, he shall issue his proclamation to the people of the State, declaring the fact, and he shall take such steps as shall be required by the said Constitution for the same to go into operation and to supersede the old Constitution of this State.

Sec. 12. And be it enacted, That this bill shall be published once a week for six successive weeks previous to the said first Wednesday in May next, in each newspaper published in the State of Maryland.

Sec. 13. And be it enacted, That any act or acts or parts of acts, inconsistent with this act, be, and the same are hereby repealed.

STATE OF MARYLAND, To wit:

We hereby certify that the foregoing is a full and true copy of an act entitled "an act to provide for taking the sense of the people upon the expediency of calling a Convention, to frame a new Constitution and Form of Government for this State, and to provide for the election of delegates to such Convention," which passed the General Assembly of Maryland at December session, 1849.

Given under our hands at the City of Annapolis, this 14th day of March, 1850

GEO. G. BREWER, Clerk House of Delegates of Md.

JOS. H. NICHOLSON, Clerk Senate of Md.

apl

THE PATUXENT PLANTER, AND THE CHARLES COUNTY AGRICULTURAL SOCIETY.

To the Editor of the American Farmer.

Under the heading, "Important Suggestions," towards the conclusion of the communication, in the March number of the Farmer, from your general, sagacious and interesting correspondent, who writes over the signature of Patuxent Planter, are some unjust reflections, on the resolutions adopted by the Charles County Agricultural Society, at their last annual meeting; and which were published in the January number of your paper. If the writer of the strictures, on the first and fourth resolutions above referred to, had sought to ascertain the nature of the grievances, which they were intended to remedy, I doubt not, but that, instead of his ill-timed facetiousness, and caustic criticism, we should have found his able pen exerted in behalf of the farming interests of Maryland,—although a majority of her inhabitants are not so fortunate as to reside in regions so fertile as his own, where corn averages sixty pounds, and wheat sixty-six pounds to the running struck bushel. It is true that there is no formal preamble to the resolutions, setting forth the causes that led to their presentation and adoption; and it is equally true, that it was from a desire to conceal the motives, by which they were prompted, that this was not done. If I am correctly informed, it was thought altogether unnecessary to append a preamble of the kind, as it was generally believed that the evils against which they were directed, were of too notorious a character to be misapprehended by any person, whose grain has ever been subjected to the partial test of the buyer's scales.

It has frequently occurred, that wheat from the same lot, sent at intervals of two weeks to the Baltimore market, (aye, at the same time, though in different vessels,) and sold to different purchasers, has shewn a difference of from two to four pounds in the weight,—without any appreciable cause. It has also frequently occurred, that wheat sold, but not delivered immediately, has been rejected, for no other cause but a decline in the market value, between the time of sale and delivery, —some frivolous pretext urged,—and our agents, under such circumstances, consenting to shamefully unjust abatement of the prices at which the grain was sold. Furthermore it is a fixed fact, that the bags containing the wheat, which is to average the weight of the cargo, are taken to the rooms of the purchasers, and weighed in scales, that are not even balanced in the presence of the skipper or agent, previous to the weighing. It has also occurred that when doubts have been expressed as to the correctness of the weights, and an offer made, by the seller, to test them by the State scales, it has been resented with intemperate zeal by the purchaser.—These are but a few of the causes that induced the Charles County Society, to recommend the running struck measure. It appeared to be the most simple manner of getting rid of very many of the difficulties with which this subject is beset,—and its operation is easily understood by the dullest minds amongst us. How this resolution, if carried into effect, could work to the disadvantage of any, is a problem beyond my comprehension. Familiarity with the article on the part of the purchaser, soon teaches him to discriminate, from an examination of the samples, with almost accurate nicety, its value for the manufacture of flour, before it ever goes into the scales.

As has been remarked above, the society, for these reasons, expressed a preference for the sale of wheat by the running bushel. Yet I feel convinced, that they have no such wedded attachment for this measure, as would prevent their adopting any other that would present a plainer or more equitable manner of arranging the matter. All they seek is to have the laws so amended, that, when they enter the market with their grain, they may not be, as they are now, entirely subject to the tender mercies of the harpies of the trade. The people are aroused to a sense of the impositions practised upon them, by the buyers, which, if not connived at, are at least tolerated, with almost silent indifference, by their agents. The time has come for a more honest understanding, between the sellers and buyers,—something must be done, and done quickly, to re-establish confidence between them,—or those mistrusts which are now rankling in the minds of the Farmers, will lead them to seek elsewhere, that justice which they fear it is impossible to have meted to them, in their own emporium. I never, for one moment, expected to find the Patuxent Planter, who has heretofore made his scathing brand tell with such force upon the combinations of agents and buyers, doing battle in their behalf, against the best interests of the wheat growing sections of our country.

It may not, to him, be a matter of moment, (raising, as he does, wheat averaging sixty-six pounds to the running struck bushel,) to lose a pound or two in weight; but to the generality of Farmers, it is a serious matter, to be thus deliberately swindled out of a large per centage of their labors. We have already seen, with great surprise, the disposition made of the bill, introduced in our House of Delegates, by a representative (Mr. Plowden,) from St. Mary's, having for its end the more equitable adjustment of these matters, in which the Patuxent Planter's favorite standard of sixty pounds was retained. The editor of the Farmer, in referring to the vote upon the bill, says, that it was rejected by the decided vote of 43 to 18. Though the majority by whom it was rejected, was very large, yet, I hope, that so far as it is entitled to the claim of being decided, it may be confined to the action of the present legislature. The Patuxent Planter, is, I humbly conceive, mistaken as to the effect of the fourth resolution, which urges the repeal of the law, by which produce agents are now required to take out licenses. It would appear, to judge from the remarks made by him on this subject, that he thinks more justice will be done to us by a few purse-proud men, who have grown fat at our expense, whilst pretending to act as agents for us, in the Baltimore market. The society by which the fourth resolution was adopted, held a different opinion. As our law now exists, the principal agents are, to all intents and purposes, nothing but monopolists. But it is a measure requiring a fuller examination than the limis of this paper will permit. I will but give utterance to a sentiment, which I feel confident is equally entertained by our friend; it is; that unanimity of action is required on the part of the Farmers and Planters, before the evils complained of, can be arrested. A combined and unflinching effort is necessary to burst asunder the bands in which we are held by the speculators, both native and foreign. I trust that when Patxuent Planter resumes this subject, as he has promised, he will bring forward some well matured plan, by which our interests may be more effectually protected. I cannot close this communication without bearing testimony to the valuable report, made by the State Agricultural Chemist to the Legislature, in which we find the result of his labors since the establishment, by law, of this office. In it we find a greater amount of scientific and practical information embraced in smaller compass, yet without sacrificing perspicuity, than can be met with any where else.

It may be truly said, that he has done the State some service; with but a single eye to the faithful performance of the task devolved upon him, he has been brought occasionally into collision with speculators on the credulity of a too confiding public; and with fearless independence of character has exposed the deceitful wiles by which their avarice has beset us.

For this he has my cordial thanks, and in my opinion should receive some unmistakable evidence of the public approbation.

A VOICE FROM ST. MARY'S.

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

MARCH 30th, 1850.

The news which we received from Europe about the middle of January last, carried up the prices of Tobacco *very considerably*, but the finer sorts remained about the same, so that from the middle of Jany. to about the 12th inst. we had a better market for tobacco and higher rates than we have had before since 1840, and we supposed that these prices would have obtained the year out; but in this it would appear that we are to be disappointed, and doomed again to low prices; but we are of opinion that this result may be avoided by a proper management on

the part of planters, particularly those who are forcing in their crops so very prematurely, as there is at this time little or no demand for the article;—no body wishing to buy, unless at prices $1 to $1.50 on the finer sorts less than the prices which ruled here in Decr. and and January.—This state of things it is said, is brought about by the news from Europe by the two last steamers, showing *large stocks* on hand and dull markets on the other side; whether this statement is true or not, we do not know; but one thing we do know, which is, that the stocks now in first hands in Baltimore were never so low as at the present time, amounting to, we might say, "comparatively nothing," except what has been inspected within the last two or three weeks. Now, it must be as plain to the "planters" as the "sun at noonday," that the market here is entirely in their own hands; and all that is necessary to keep up the prices of January and February is for the planters to keep their crops at home for 30 or 40 days; and, in the interim, there will have arrived, possibly, some 8 or 10 "German ships," which will, we think, not be permitted to return home without tobacco, and they would be subjected to too heavy expense to lay here *idle* waiting upon the market; such a thing never was done and never will be. We throw out these hasty observations, hoping they may meet the views of the planters "unanimously," and result to the advantage of *all;* otherwise, if but partially observed, it may injure some; but, if low prices must rule hereafter, our planters must, in some measure, lay the evil at their own door.

We quote common dark crop and second at 3 to $4; good crop, 5 to $6; good and fine reds, 6 to $9; but our quotations for the higher grades are only nominal, in the absence of transactions, none of which have occurred for some days.

Wheat. Good reds, 1.00 to $1.05; good white, 1.06 to $1.10; ditto for family flour, 1.12 to $1.18.

Corn. Fair and good white, 47 to 50c.; mixed do., 47; yellow, 49 to 51. Rye, 50 to 53c. Oats, Md., at 32 to 35; Pa., 35 to 37.

Cattle.—Prices ranged from $3 to $4.25 on the hoof, equal to $6a8.25 net, and averaging $3.62½ gross. Hogs, $5 to $5.20. Cotton, mid. to fair upland, sales at 11¾a12¼c., 4 and 6 mos. Shad, new, $10. Herrings, $5.50. Flour, $4.62. Rye Flour, $3. Corn Meal, $5.75 per bbl. Molasses, N. O., 24a27c.; Cuba, 17a20; P. Rico, 26a29. Rice, $3.50 a3.62 per 100 lbs. Sugar, N. O., $4.55a5.75; Cuba, $4.50a5.75; P. Rico, $4.50a6. The stock of sugar is decreasing, and better prices are expected. Whiskey, sales at 23a23¼c. in bbls. Wool, stock light, and demand limited.

Guano.—Peruvian, $48 per ton of 2,000 lbs.; in lots of 10 tons, $47. Patagonian, $38 per ton of 2,000 lbs.; in lots of 10 tons, $37.

Timothy Seed, retail, $3¼a3¾. Clover Seed, do., $4a4.50 for new.

LIVERPOOL, March 8, 1850.

Tobacco Market.—The sales this month are 2774 hhds, viz: 200 Virginia leaf, 494 stemmed, 257 Kentucky leaf, 1816 stemmed, and 7 Maryland. The imports are 174 hhds. from New York, 29 from New Orleans, and 20 from Baltimore. The operations of speculators were continued in the early part of the month; their purchases were heavy, and established an advance of ½d. to 1d. per lb. on both Virginia and Kentucky stemmed, which has been confirmed by subsequent sales both for resale and the trade. Virginia leaf has been comparatively neglected, and has been less affected; but is is reasonable to suppose that it must, ere long, be in request, and partake of the improvement. We may remark that a few fine stemmed, both Virginia and Kentucky, have been sold at ½d. above our highest quotation. The market closes firmly.

METEOROLOGICAL TABLE,

From the 20th of February to the 21st of March.

Kept at Schellman Hall, near Sykesville, Carroll County, Md.

Taken at 6 o'clock, a. m., 2 o'clock, noon, and at 9 o'clock.

	Wind.			Temperature			Remarks.
2	w	sw	w	33	45	44	Clear, cloudy
21	sw	w	w	44	55	48	Clear
22	nw	nw	nw	32	35	32	Clear
23	nw	sw	w	28	41	28	Clear
24	w	se	sw	29	41	36	Cloudy, rain
25	w	w	w	36	55	40	Clear
26	s	w	w	40	62	60	Clear
27	w	w	nw	35	62	52	Clear cloudy,
28	nw	ne	nw	38	43	41	Cloudy, drizzling, rain 1-2 in.
1	w	w	w	48	51	38	Clear, and very strong wind.
2	w	w	nw	28	50	44	Clear
3	nw	nw	nw	24	32	29	Cloudy, hail, rain, snow
4	nw	w	w	18	27	23	Clear
5	w	w	sw	20	40	35	Clear
6	w	w	sw	35	40	45	Rain 2 in.
7	w	w	sw	43	45	40	Clear
8	w	w	w	31	44	36	Clear
9	nw	e	se	29	43	38	Clear
10	w	sw	w	40	47	44	Frost, clear
11	w	sw	s	31	48	38	Clear
12	w	w	w	32	50	38	Clear
13	se	s	sw	52	57	56	Cloudy, rain.
14	sw	w	w	57	65	61	Rain 9 1-2 in., clear
15	w	w	w	43	57	50	Clear, rain 3-4 in.
16	w	w	sw	40	54	47	Fog, clear
17	ne	ne	ne	40	44	43	Cloudy, drizzling, rain
18	ne	nw	nw	37	43	43	Rain 1-10 in., cloudy
19	sw	nw	nw	42	42	37	Clear, cloudy
20	sH	w	w	43	40	30	Clear

BALTIMORE No. 1 GROUND PLASTER for sale by the subscriber, on the best terms, who would respectfully state to the agricultural community that he gives his whole attention to the selecting and grinding of plaster in the best manner, from cargoes of the purest article, selected by himself; and as regards the quality of which, he refers to the certificate of the State Inspector, below.

WM. A. DUNNINGTON,
Steam Plaster Mill, on the Basin.

I hereby certify, that I have analyzed average samples of all cargoes of Plaster that W. A. Dunnington has purchased for his mill during the past eighteen months, and state that the result of said analysis produced an average per centage equal to the best that has come under my inspection.

M. LAMB, Inspector.

Baltimore 4 mo., 1, 1850. apl

FOR RENT OR LEASE—A FARM, containing 160 acres, of cleared land, adjoining Baltimore city limits. It is in a fine state of cultivation; a crop in the ground, about 40 acres in blue stem white wheat, which will be put in clover this spring, and a field of clover ready to cut this season.—There is a comfortable residence, with a large barn and other out-buildings, all in good order. The fields are all well watered. Its proximity to the city, and the general advantages of the farm, renders it a desirable opportunity for an industrious and enterprising farmer, to whom a lease would be given for 6 or 8 years. There are various implements and machinery on the place, which could be had also, if desired. A further description is deemed unnecessary, as any person desirous of renting or leasing will, of course, view the premises. Apply to the editor of the American Farmer.

☞ Lancaster Examiner publish 3 times, and charge this office. apl

FOR SALE—100 bushels of BONE SHAVINGS—by R. BALL,
feb1-tf East Falls Avenue, near the Bridge, Baltimore.

AGRICULTURAL ESTABLISHMENT.

The subscriber, manufacturer of *AGRICULTURAL MACHINES* AND IMPLEMENTS, And dealer in SEEDS, &c., offers for sale,

HORSE POWERS, for from 2 to 8 horses.

THRESHERS, of various sizes and superior construction.

WHEAT FANS, improved pattern 1850, warranted to clean equal to any other fan at one operation.

PLOUGHS, of all sizes and various patterns.

Parker's original Iron Cylinder CORN SHELLER, known by some as the Virginia Sheller; price for horse power, $27; hand power, $24.

Smith's Patent STRAW CUTTER; price, $10; one of which was exhibited at the last Maryland State Fair, and gave very general satisfaction. This cutter can be easily transported to any part of the United States, occupying, when packed, a space of only 1 foot by 4.

Also, Harrows, Cultivators, Axes, Scythes, Shovels, Spades, &c. ☞Orders from any part of the U. States punctually attended to.

Manufactory on Water st. Warehouse, No. 36 Main street.

J. K. PARKER.

Richmond, April 1, 1850. 5t

PLOWS AND CULTIVATING IMPLEMENTS.

R. SINCLAIR, JR. & CO.

HAVE manufactured, and have for sale, an extensive assortment of Cultivating and Plushing PLOWS, Corn and Drag HARROWS, CULTIVATORS, ROLLERS, &c.

Also—We particularly recommend to the notice of Planters the Echelon or Gang Plow, made to cast 2, 3, 4 or 5 furrows, and admirably adapted for seeding, cultivation or shallow plowing. The Plows casting two furrows are made with large and small mould boards, and suitable for cultivation or ordinary plowing.

R. SINCLAIR, JR. & CO.

ap1 62 Light street, Baltimore.

SEEDS FOR ROOT CROPS.

JUST received by the subscribers—

000 lbs. Mangel Wurzel and White French SUGAR BEET SEED

1 case large oval Sugar Beet

200 lbs. Altringham and White Belgium Carrot Seed

1 cask purple top Ruta Baga

1 do. Dale's Hybrid Turnip

10 bbls. large Yellow Crookneck Canada and Quasha Pumpkin Seed

10 bbls. Jerusalem Artichoke Roots.

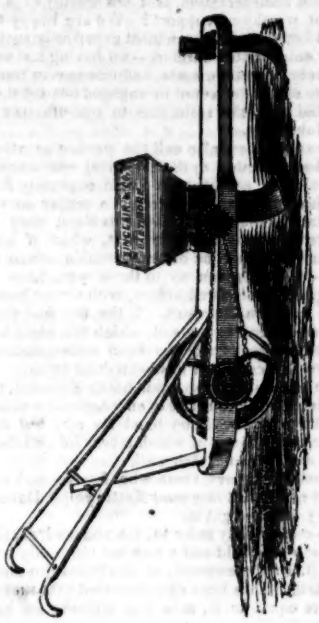
Also,

GARDEN and GRASS SEEDS, of every description.

R. SINCLAIR, JR. & CO.

ap 1 62 Light street, Baltimore.

CORN DRILL.



THE above figure represents the original plan of our Corn and Seed Horse Drilling Machine, which has recently undergone improvement. Instead of the coulter in front, we have substituted a wheel for regulating the depth of the drills; also, instead of the broad wheel behind, we now attach two narrow wheels, which run on either side of the beam. By these alterations, the machine is made to plant the seed with more certainty as regards depth, and to run more steady. The machine, including a Corn, Beet and Turnip Cylinder, is sold at $20. Almost any description of seed may be planted with this machine, by attaching suitable cylinders, and agreeable to directions furnished with the machine.

A hand power machine, of similar construction, is made by the subscribers, and sold at $10.

R. SINCLAIR, JR. & CO.

ap 1 62 Light st. Baltimore.

Agricultural Depot of Kettlewell&Davidson's Renovator.

CORN PLANTING—OATS CROP—The subscribers again ask the privilege of reminding farmers that they are prepared to supply them with the *cheapest*, the most permanent and effectual chemical manure they can buy. Without wishing to detract from the claims of others, they ask that their article the RENOVATOR, *may not be confounded with any other fertilizer offered to the public. They wish to be tried and stand upon their own merits.* The article they manufacture has been approved of by the severest chemical investigation; and the results confirmed by an extensive experiment. At nearly half the price of Patagonia Guano; at nearly 3-5 less than the Peruvian; they will agree to forfeit 10 barrels of their Renovator to any of the numerous experiments which *they know have* been made side by side with the former, where more grain has been, *or will be, the coming crop, realised to the acre from the use of this description of Guano, than their fertilizer.* The experiment to be carefully made, under proof, *and the forfeiture tendered to all;* advantages of soil, cultivation, &c. to be equal. In some cases the Peruvian has surpassed the fertilizer, in others to the contrary; in some cases both have failed to a certain extent, but in a second crop it is almost impossible for the fertilizer to fail; as one of the primary objects has been to *make a chemical combination that would give permanent improvement to the soil, and we know that the Renovator will.* It must also be borne in mind, that the ammonia in Guano being volatile, and therefore rapidly escaping from the earth, at once shows its effect upon the plant, while the most advantage from the Fertilizer, is at the time the grain is heading. The ammonia in the latter being a sulphate, or fixed with the oil of vitriol.

With this confidence, we offer our Renovator to the Agriculturist for the approaching *Corn*, and Oats crop. We ask the farmer from its cheapness—permanancy of price—lasting effects—facility for

use—and transportation, is it not worthy of a trial? Is it not worthy of support? We are happy to say it must be; for it has been most generously sustained by our enterprising farmers—we having last season, sold every barrel we made, and this season thus early, have either delivered or engaged one third of all we could find the residiums to manufacture since last November.

The subscribers also call the particular attention of *Tobacco planters* to the Chemical compound, the Generator, a combination made expressly for the growth of this plant. Surely in a matter so vitally important to the planters of this Sate, they could venture a trifle as an experiment, which if adapted to their soil would be of incalculable advantage to them. It has proven so to those who have made such trial, and renewed orders, with strong commendation has been the result. If the Chemist can supply the elements to the soil, which this plant has exhausted, a great good has been accomplished, and this we feel confident has been done by us.

The subscribers also again notify Farmers, that to complete their enterprise of an "Agricultural Depot" they have constantly on hand *the very best Ground Plaster*, every barrel of which is *branded with their own name, and ground at their mill.*

In making orders, those who *buy through agencies* should *specify that they want* Kettlewell & Davidson's, or they may not get it.

We respectfully refer to, the annexed certificates to which we could add a number too costly to print.

N. B. As the elements of the renovator sink into the earth, it has been demonstrated that there is no manure equal to it, as a top dressing for grain or grass.

KETTLEWELL & DAVIDSON,
Factory Hamburg Street, Federal Hill.

Office (down stairs) at the Wholesale Drug Store of Messrs. Ober and M'Conkey, corner of Lombard and Hanover streets.

PRICE OF THE RENOVATOR,

$3 per barrel, or $20 per ton.

LAUREL FACTORY, July 29, 1848.

Mr. John Kettlewell—Dear Sir: In reply to your communication, asking for my experience in the use of your Fertilizer, I have but time to say, that I have used it on grass, as a top-dressing, and on corn, as an experiment, this spring, at the rate of 2 to 2½ barrels per acre, in both cases with as much effect, apparently, as where I used stable manure or ashes. I am satisfied, so far, with the effects produced by it, and shall continue to apply it wherever I fall short of my other manures.

Yours, very respectfully,
H. CAPRON.

SILVER SPRING, July 22, 1849.

My Dear Sir: I measured 3 acres of ground to make an experiment of the relative value of your renovating Salts, ashes and plaster, and Peruvian guano. I put five dollars worth of each on corn, giving a separate acre a broadcasting application of your manure—another acre the ashes—the third acre the guano. The soil of each acre is as near alike as can be. As yet, it is impossible to say which has the race. The guano run ahead at first, but now, I think, it is neck and neck with the salts; the ashes and plaster, at the beginning rather behind both, is running up. It is impossible to say which wins until I shuck out the corn. I would bet on the salts.

Your friend,
F. P. BLAIR.

Dear Sir: I have no hesitation, on the contrary take great pleasure in affording you the result of my experiment of your Agricultural Renovating Salts for the improvement of land. My experience is unquestionable and decidedly favorable. I applied it upon five acres of poor land, (which I planted in corn,) both broadcast and in the hill, alongside of land which had been both limed and manured; and where your Renovator was used, I find the corn in every respect to be as good and flourishing, as it is upon better land that had been heavily manured upon a clover sod. I look upon your enterprise as highly important to the farming interests of the State, in thus affording them so cheap and valuable a manure, and can give no stronger evidence of my confidence in it, than by ordering five times the quantity I purchased of you last spring.

Very respectfully,
Your friend and ob't serv't,
JOHN L. STANSBURY.

BALT. August 16th, 1849.

From a member of the Baltimore Bar.

BALTIMORE, July 18, 1849.

Dear Sir: In redemption of my promise to you made in the spring, when I purchased a ton of your "Renovator," it gives me pleasure to state that my expectations from its use have thus far been fully realised. As directed, I applied on each hill of the corn immediately after the same had been planted, a small handful, and upon one or two parts of the field where the soil had been almost entirely washed off, the "Renovator" at the rate of a barrel per acre, was sown broadcast and harrowed in before planting the corn. The corn where the "Renovator" has been used appears much better both in color and size, than where none has been used, though the land where none has been used is apparently much better than that where the "Renovator" was used.

I consider your "Renovator" a valuable composition, and should my corn continue to improve as it has done I shall be amply rewarded for the expense incurred. I shall certainly use some of your "Renovator" on my wheat this fall.

Yours, &c.

HOWARD DISTRICT, August 17, 1849

John Kettlewell, Dear Sir:

In reply to your favor now before me, I have to state, that having made the trial of your fertilizer on potatoes and corn, I am much gratified with the result—being confident that where it has been applied, that the yield will be double, independent of leaving the ground in a much better state than it was preparatory to my applying it, and, from the experiment I have made, believe it to be one of the most valuable manures now known; and, as an evidence of my opinion of its fertilizing qualities, you will please send me as early as convenient, ten barrels, which I was on the point of ordering when your favor came to hand. Nothing new.

With respect your friend,
PETER GORMAN.

BALTIMORE COUNTY, 1849.

Dear Sir: I have no reluctance to repeat to you what I stated, in personal interview, a few days ago, that my experiment of your agricultural Renovator

has met my entire expectations, and that I look upon it as an enterprise deeply interesting to the agricultural interests of the State. It is cheap in price, and, in applying it upon corn, in comparison with guano, my experience gives it the preference. I can give you no better evidence of my faith in its qualities as a fertilizer than in ordering, as I now do, five times the quantity which I purchased from you in the spring. That time will confirm your opinion that it will give continued improvement to the land, I have an equal confidence.

Yours respectfully,
C. S. STANSBURY.

To Messrs. Kettlewell & Davison:

Gentlemen—In reply to your inquiry, how the experiment I made of your chemical Renovator resulted, I take pleasure in saying, far beyond my expectations. I sowed it broadcast, a barrel to the acre, upon poor land, and upon an old sod that had not been ploughed for some years, and planted my corn upon the 12th of May. I repeat, the land was poor; but my corn, thus far, in appearance, has not only astonished myself, but promises a yield which has surprised all of the many who have seen it, the quality of the land taken into consideration; indeed, I know of none in my neighborhood that is better, without any regard to soil. It is scarcely necessary to say, from this demonstration—which I should like every farmer in the State to see—that my confidence in the fertilizing qualities of your salts is stronger than in any manure I have ever tried.

Truly your friend,
JOHN H. KAUFFMAN.

Baltimore, August 27, 1849.

MONTGOMERY CO., August 29th, 1849.

DEAR SIR: Last spring I purchased fifteen barrels of your Renovator, and applied it at the rate of 1 1-2 barrels per acre, on my corn ground, by harrowing it in after the ground had been plowed. The result, to appearances, thus far, is good. I also applied two barrels per acre to my tobacco land, and am as well satisfied at present with that as the corn. I am opposed to recommending any single experiment to others, but will purchase of you for my fall crop,

Yours, most respectfully,
N. C. DICKERSON.

J. Kettlewell, Esq.

P. S. Some of my neighbors have seen the astonishing effects of your Renovator on my crops, and have determined to purchase of you, this fall, for their wheat crop. N. C. D.

☞ The following papers will insert this advertisement, or so much of it as may amount to $5, viz: Harford Gazette, Howard Advocate, Cecil Whig, Marlboro' Gazette, Worcester Shield, Easton Star, Cambridge Democrat, St. Mary's Beacon, Rockville Journal. ap5

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter, Portable Tobacco Press; Portable Grist Mills complete, $12.

JERUSALEM ARTICHOKES.—For sale, a few barrels, raised in Baltimore county, at $1 per bushel. Apply at this office. mr1t

Baltimore Fire Insurance Company.

No. 24 South Street, Baltimore.

THIS old established Company (incorporated by the legislature of Maryland, 1807,) continues to *INSURE AGAINST LOSS OR DAMAGE BY FIRE*, in the city or country, on the various descriptions of property: On Farms, Barns, Granaries, &c.—on Dwelling Houses, Storehouses and Warehouses,—on Merchandize—on Country Produce—on Household Furniture—on Vessels Building, on Vessels in Port, and on Cargoes, &c. &c.

The Board of Directors is composed of the following gentlemen:

J. I. COHEN, Jr., President.

William Frick,	David S. Wilson,
Robert A. Taylor,	Wm. F. Worthington,
William G. Harrison,	Jas. A. Sangston,
Samuel T. Thompson,	William Gilmor,
George R. Vickers,	J. Pennington,
F. W. Alricks,	Joseph King, Jr.
S. Owings Hoffman,	

☞For forms of application, and any other information, apply at the office, No. 24 SOUTH STREET, where all cases are immediately attended to. Insurance can also be effected for any length of time that the applicant may desire.

**Applications for insurance in the country can be made by letter direct, or through the medium of correspondents of the party, residing in Baltimore. Answers can be promptly given, with all relative information which may be desired. Letters to be addressed to

FRED'K WOODWORTH, Sec'y.
Baltimore, September, 1849. sep 1

BONE-DUST AND POUDRETTE ESTABLISHMENT.

On Harris' Creek, at Canton, Baltimore.

THOMAS BAYNES, continues the manufacture of *POUDRETTE*, and is prepared to supply any orders for the same—The article manufactured by him, will be found probably more valuable than any made in the Eastern cities. His *BONE-DUST* weighs from 55 to 60 lbs. to the bushel, and is as fine as any article sold in this market. Price of Bone Dust, 55 cents per bushel. Poudrette, $1.20 per barrel. Persons sending their carts or wagons to the factory, can obtain the Poudrette at 20 cents per bushel.

☞Any orders left at the factory, or with Mr. S. SANDS, editor of the "*Farmer*," at the State Agricultural Society's Rooms, will receive immediate attention. Terms, cash. mar 1 tf

Albion Life Insurance Company.
LONDON, NEW YORK AND BALTIMORE,
Was Instituted in 1805,
WITH A CAPITAL OF $5,000,000.
Example of Rates of Insurance for $100.

Age next birthday.	For one year.	For seven years.	Life without profits.	Life with profits.
25	98	1 03	1 93	2 17
30	1 06	1 13	2 19	2 48
35	1 18	1 25	2 55	2 88
40	1 31	1 44	3 00	3 38

Insurances are undertaken by the Company at all ages, from 10 to 74, and to any amount not exceeding $15,000, nor less than $500 upon any one life. Persons may reside in the Southern States or West Indies all the year by paying extra.

Prospectus with rates, and every information can be had on application to the agents.

GUEST & GILMOR,
jan1 tf No. 50, S. Gay street, Baltimore.

SPLENDID COLORED DAGUERREOTYPE PORTRAITS.

By C. W. PURCELL, (late operator for *Broadbent & Cary*,)
No. 198 BALTIMORE STREET,
Over the American Office, and adjoining the Farmer Office.

HAVING a thorough knowledge of all the latest improvements in this beautiful art, Mr. Purcell feels a confidence in assuring the public that all pictures taken at his establishment shall combine a most correct likeness with the highest artistical skill. He will undertake to give the fullest satisfaction, or no charge will be made.

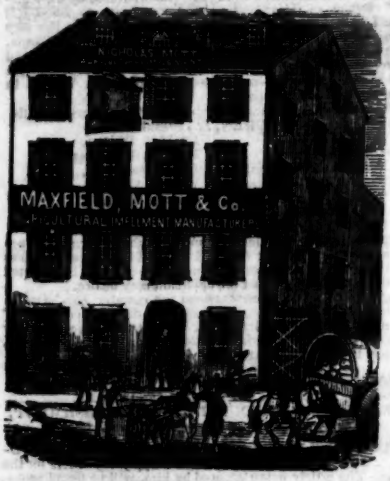
Ladies and gentlemen are requested to call at his rooms and examine his specimens. sep 1-1y.

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Ahum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

tf **PELL & ROBINSON, City Block.**

NORTH-WESTERN REPOSITORY!
AGRICULTURAL IMPELLMENTS!!



NOTICE!!

HAVING attended several County Fairs, and also the great State Fair, we deem it our duty to notify the farmers generally, of the success with which we have met, and in order that they may not be deceived in supposing that we attended those in which our name was not mentioned—we will, therefore, name those at which we were present, viz:

1st—The Montgomery Co. Fair, held September, 1849.
2d—The State Fair, held in Baltimore, October, 1849.
3d—The Talbot Co. Fair, held in Easton, Oct. & Nov. 1849.

LIST OF PREMIUMS RECEIVED.

1st Premium of $20, for best display of Implements.
1st do for best constructed plough, both 1 and 2 horse.
1st do do Ploughing.
1st do do Straw Cutter.
1st do do Cultivator—something new.
1st do do Harrow.
1st do do Fans.

Being experienced men in the various practical parts of the business, we think ourselves well qualified to give satisfaction—we warrant our work to be of the best materials and workmanship, and only request a call, in order to convince the farmer of the truth of the assertion.

☞All orders promptly attended to, and Implements delivered to any part of the city free of charge.

MAXFIELD, MOTT & CO.
No. 97 North Paca street, Baltimore.

CORN SHELLERS—CORN SHELLERS.

MAXFIELD MOTT & CO. call the attention of the farmers to their large and extensive stock of CORN SHELLERS, of various patterns and capacities, which they will be pleased to furnish on the most reasonable terms.

MAXFIELD, MOTT & CO.
jan1 No. 97 North Paca st., 3 doors S. of Franklin, Balt.

STRAW CUTTERS.

SMITH'S new and superior STRAW CUTTER, which, for durability, simplicity and price, cannot be surpassed. Also, the Cylindrical Box, for cutting straw, hay or fodder, so favorably known to the public. Kept constantly on hand by

jan1 MAXFIELD, MOTT & CO.

HAVING completed our arrangements with several of the best Nurseries in the country, we are now prepared to furnish both Fruit and Ornamental TREES, of the most choice and select varieties.

All orders for Trees of any description promptly attended to.

MAXFIELD, MOTT & CO.
Ja1 No. 97 North Paca st., 3 doors south of Franklin.

KENTISH'S PREPARED GUANO for sale at N. York prices, by [mar1] E. WHITMAN, Jr.

FOR SALE—A young STALLION, four years old, of a good riding stock, 16¼ hands high, a handsome bay, of commanding appearance, spirited and active; has been worked in harness, and rode a little; might be let to a few mares this season; terms accommodating and reasonable.—For particulars and pedigree, enquire of Samuel Sands, at the office of the American Farmer. ap1

TO TANNERS.—A gentleman in Greensborough, Alabama, wishes to employ a man to establish and take charge of a Tan Yard. One who can be well recommended, for ability and character, could, probably, find no more favorable opportunity to do well than the advertiser can offer. Apply (if by letter, *post paid*) to the editor of the American Farmer, who will give the name and address, and other particulars relative to the matter. ap1t

FIELD SEEDS.

JUST received—
20 sacks Lucerne Seed
2 casks Vetches or Tares
2 do English Ray Grass
2 do White Mustard Seed

In store, Millet, Buckwheat, Timothy, Herds and Orchard Grass Seed, English and American Lawn Grass Seed, White Clover, Kentucky Blue Grass Seed, &c. &c.

R. SINCLAIR, JR. & CO.
ap1 62 Light street.

Guano! Guano!!

THE subscribers offer for sale, in lots,
Peruvian GUANO, Government importation;
Patagonian do very superior;
do do second quality;
Clover Seed, Timothy Seed,
Millett Seed, Broomcorn Seed,
Ground Plasters, Ground Bones,
Kettlewell's Agricultural Renovator, at the manufacturers' prices. Reynolds' Corn Shellers.

They guarantee the purity of all Guano passing through their hands; and farmers ordering may depend on receiving it at the lowest prices, and every attention being given to its proper shipment.

W. WHITELOCK & CO.
mar1 Corner Gay and High streets.

POUDRETTE, &c.

POUDRETTE, from the Lodi Factory. Pulverized Carbonate of Lime for sale, in quantities to suit purchasers, by WILLIAM CHILD, No. 78 South street, Bowly's wharf, at 2 dollars per barrel. mr-1t

AGENCY

For the Purchase and Sale of Improved Breeds of CATTLE, SHEEP, SWINE, &c.

I WISH to remind the farmers and planters of the Southern and Western States, that I still continue to purchase and sell improved Stock,—such as Cattle, Sheep, Swine and Poultry, of the different kinds and breeds, on a very reasonable commission. They will be carefully shipped, or sent away as ordered.

All letters, post paid, addressed to me, at Philadelphia, will be attended to without delay.

sep 1-6t AARON CLEMENT.

PLOUGHS! PLOUGHS!!

The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also, THRESHING MACHINES and HORSE POWERS—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz: Messrs. T. Beard, The Beard, Dr. Watkins, J. T. Hodges, T. Welsh, W. Mackall, J. Inglehart, A. Sellman, R. Sellman, W. Hopkins, J. Kent, Geo. Wells, Geo. Gale, Dr. Fenwick, A. Franklin, J. C. Weems, of Anne Arundel county; G. W. Weems, J. T. Barber, R. B. Chew, W. Boswell, Y. Howes, of Calvert co., Md. Agent of Evans Davis, Baltimore co. for sale of the woodcock Plow. Pennsylvania Grain Cradles. CHAS. H. DRURY.

Gillingham Alley, entrance from Howard-st., near Pratt, mal and store, Hollingsworth-st. corner Pratt.

IRON WIRE.

500 BUNDLES IRON WIRE, including all numbers, suitable for Fencing, for sale by

E. L. PARKER & CO.
mar1-3t Cor. Calvert and Lombard streets.

To Farmers and Planters.

THE New and Improved Poudrette of "The Lodi Manufacturing Co." is offered for sale the present season at the following rates, viz.—1 barrel, $2; 3 barrels, $5; and at the rate of $1 50 per barrel, for any quantity over 6 barrels. Delivered free from charge for barrels, cartage, or other expense, on board of vessels in the City of New York.

☞ *This article, made from night soil,* into a light dry and inodorous *powder, is the cheapest and most powerful manure in the world for corn or tobacco. Two barrels, (@3 worth,) will manure an acre of corn in the hill,* and will bring a heavier crop than can be obtained in any other way.

A pamphlet containing instructions for use, certificates from some of the first Agriculturists in the United States, and much valuable information, will be sent gratis to any applying (*post paid if by letter*) to "The Lodi Manufacturing Co., 66 Dey street, New York." f1-3t

Bennett's Poultry Book.

PHILLIPS, SAMPSON & CO.
110 *Washington street, Boston, Mass.*

Will publish, on the 10th of March,

THE POULTRY BOOK

—AND—

FOWL BREEDERS' GUIDE,

Being a treatise on the Breeding, Rearing, Fattening and general Management of Domestic Fowls, by JOHN C. BENNETT, M. D., illustrated with

FIFTY PORTRAITS OF FOWLS,

Taken from life. This work, it is believed, will contain more Practical Information, on the subject of Fowl Breeding, than all other works issued from the American press.

The above for sale by booksellers generally throughout the country, and at the office of the "*American Farmer,*" Baltimore, by [marl 4t] SAMUEL SANDS.

☞ *The above work is received—Price $1.*

LEONARD SMITH'S

PATENT VENTILATING SMUT MACHINE.

THIS MACHINE received a Gold Medal from the American Institute, New York, at its last Exhibition; a Silver Medal from the N. Y. State Agricultural Society, at its Exhibition at Syracuse in September last, and a Diploma from the Maryland State Agricultural Society, at its Exhibition in the city of Baltimore, in October last, and is highly approved of wherever it has been tried. It can be seen in operation at Geo. Page's Wind Mill, in Washington city; Jas. W. Osborne, Robertson's Mills, in Georgetown; and at Samuel Canby's Mills, at Ellicott's Mills, Md.; at Wm. B. Thomas', Spring Garden Mills, Philadelphia—where persons wishing to examine it can be satisfied of its utility. Orders for Machines will be promptly attended to, if addressed to

mar1-4t* LEONARD SMITH, Troy, N. Y.

CORN PLANTERS,

WARRANTED the best article in use. Price, $20. For sale by E. WHITMAN,

f1 Cor. of Light and Pratt streets, Baltimore.

Trees, Plants, Flowers and Seeds.

THE subscriber offers for sale a choice selection of Fruit and Ornamental Trees, Flowering Shrubs, Evergreens, Grape Vines, Roses, Camellias, Dahlias, Herbaceous Plants, Bulbous Roots, with a large collection of Greenhouse Plants in general, and a fresh stock of

GARDEN AND FLOWER SEEDS,

Just imported (annually), of superior quality, and offers every thing in his line on the most reasonable terms.

Victoria Rhubarb and Sea Kale plants, with Cabbage, Cauliflower, Egg plants and Tomatoes, in season for planting. All orders attended to. Address

f1 JOHN FEAST, Florist and Seedsman, 279 Lexington street, Baltimore.

GUANO—GUANO.

300 tons Peruvian,
100 do first quality Patagonian,
100 do 2d do do

Regularly inspected, in strong cotton bags, and warranted to be of the very best description. Also, PLASTER, in barrels, City manufacture.

200 bushels SEED BUCKWHEAT, a superior article, from New York. All of which are offered for sale on best terms, by

S. FENBY & BRO.

mr 3t Cor. Gay and Pratt streets, Baltimore.

BONE DUST.

THE subscriber is prepared to furnish from 1 to 1000 bushels Ground Bones, at his establishment, at Canton, opposite Brines' Distillery, below the race course, or orders can be left at his residence, corner of Happy Alley and Eastern Avenue. A sample is left at the Agricultural Society's hall, where it will be shown by the editor of the American Farmer, with whom orders can be left. Col. W. W. W. Bowie, of Prince George's, who has used it, writes as follows; "I was highly pleased with your bone dust; that at 50 cts. per bushel was the best I ever saw; that at 35 cts. was very fair for the price.

mar-1t* JOSHUA HORNER.

Brinkleyville Vineyards and Nurseries.

UPWARDS of twenty years experience, and, therefore, proper tests had of plants, &c., enables the subscriber to offer articles in his line particularly well adapted to Southern use: Well rooted Trees and Grape Vines (of the latter, the most Scuppornong, as best grape South) at from 10 to 40 cents each, according to size; Wines from 1 to 6 dollars per gallon, according to quality. Orders, with remittances or equivalent, and letters of enquiry, post paid, promptly attended to by the agricultural public's humble servant.

SIDNEY WELLER.

Brinkleyville, Halifax Co., N. C., Dec. 26, 1849.

Mr. Samuel Sands, my Agent at Baltimore, and Messrs. Peebles, White & Davis, at Petersburg, Va.

N. B. As invited by most respectable citizens of Raleigh (60 miles) to branch off my establishment thither, I may do so, if a suitable partner offers to manage my vineyards, and he put in a few hundred dollars for meeting expenses of ingredients, &c., for next crop of wine, that I may turn my resources to a new quarter; or if, for a few thousand dollars offered, or not to make too great a sacrifice, I *might sell* low, to *remove* to Raleigh. A *speculation* here offered, better, perhaps, than that of going to California. [f1-tf] S. W.

A. G. MOTT,
AGRICULTURAL IMPLEMENT MANUFACTURER,
No. 38 *Ensor street,* near the Belair Market, Baltimore. Plows, Cultivators, Harrows, Wheat Fans, Straw Cutters, Grain Cradles, and all of the best and most approved Agricultural Implements in use.

☞ AGENT for the celebrated N. York Wiley and Empire Plow Castings. mar1

WATER RAMS.—The undersigned will put up Water-Rams on the farms of gentlemen in the vicinity of Baltimore, and guarantee their performance. Rams of his construction, can be seen on the farms of Messrs. Wm. Jessop, Wm. Tagart, John Merryman, N. R. Merryman, E. P. Horn, Joshua Cockey, Dr. Tyson, Rider, and others, of Baltimore County, Md.; all of whom can testify to the correctness of the principle, and the value of the machine. All communications, or information upon the subject, will be promptly attended to.

JAMES COOK,
Chatham Post Office, Chester County, Pa.

☞ Further particulars can be obtained of the Editor of the American Farmer, where orders may be left. jan1

To Planters, Farmers, Mill Owners and others.

MURRAY & CLARK,
MILLWRIGHTS AND MACHINISTS,

RESPECTFULLY inform the public that they are now established in BALTIMORE, MD., AND ELIZABETH CITY, N. C., and are prepared to furnish all kinds of MILL-WORK, HOISTING MACHINES, CRANES and AGRICULTURAL MACHINERY, at the shortest notice, and as cheap as can be got elsewhere, such as Mill Patterns, Mill Castings, Wrought Iron Work, Brass Castings and Agricultural Machinery, such as Horse Powers, for all purposes, Thrashing Machines, Portable Grist Mills for hand or power, Grain Fans; Straw, Hay and Fodder Cutters, for hand or power, Corn Crushers, for hand or power, Grind Stones, Picks, Mattocks, Grubbing Hoes, Axes, Wrought Plows, and Plow Castings, also the far-famed PETTIGREW CORN SHELLER, improved by Murray, that will shell from 300 to 700 barrels of Corn per day, and would refer to the following gentlemen, who have them in use.

Perquimans Co, N. C.—Edmond B. Skinner, Benj S. Skinner, Francis Nixon, Col. James Lee, A. C. Toms, H. N. Mabane, Thomas Newby, Dr. C. M. Ford, James M. Sumner, Esqrs.

Halifax, N. C.—Thomas P. Devereux, David Clark, Esqrs.

Pasquotank Co, N. C.—William Glover, William H. Davis, Joseph H. Pool, John C. Barnes, George W. Pool, Robert Pendleton, Thomas F. Banks, William Charles, Edmond Perkins, ames E. Weeks, Mark S. Sawyer, Thad. F. Banks, James L. Mullen, Esqrs.

Chowan Co, N. C.—James C. Johnston, Thomas D. Warren, Aug. Moore, Joshua Skinner, Esqrs.

Bertie Co, N. C.—John Devereux, Esq.

Camden Co, N. C.—W. N. Gregory, Major Gregory, Wm. R. Abbott, Dr. F. N. Mullen, Esqrs.

We here take pleasure in giving the following Extract of a letter received on the 29th of September, 1849, from Thomas D. Warren, Esq., Endenton, Chowan Co., N. C.

DEAR SIR:—Your letter asking my opinion as to the performance of the *Horse Powers and Thrashers*—furnished me by you, was duly received; in answer, I am happy to say that they are very excellent Machines, and deserve all the praise that I can bestow upon them. The principle of the powers is good, and combines great velocity with easy draft—is simple and easily adjusted, which is a great desideratum to a farmer. I am highly pleased with their performance, and give them preference to any I have ever used or seen. As to Fans—I have one from Baltimore, one from New York, and several others, but none are equal to the one sent me by your partner, Mr. Clark. I shall order more from him of the same sort. With respect, &c., I am yours,

THOS. D. WARREN.

MURRAY & CLARK:—The Fan spoken of above, is one o the same pattern that Mr. Hathaway wrote to us of, as having cleaned one thousand bushels of Wheat within one day.

The following is handed to us by Mr. A. W. Willett, who is now operating with two of our Powers and Thrashers.

DEAR SIR:—In answer to your inquiry about Machines, we would respectfully say to all those that are in want of Machines, that yours is the best we have seen—as it does not break the grain—leaves the straw in good condition—works easy, and thrashes as clean and as fast as any we have seen—and for durability, there is none better made.

Respectfully yours,

G. MYERS, JR.

JOHN CONNELLY, Manager for Capt. McBlair, HIRAM HAUFMAN, MOORE and HOOVER.

MR. A. W. WILLETT: *Baltimore, 2d Oct.*, 1849.

Sir:—In reply to yours of 25th inst., I have much pleasure in stating that the thrashing done for me was highly satisfactory; the performance of your Machine appeared to be perfect.—Should I have more thrashing to do, and you were able to attend to it, I should employ you to do it.

Yours respectfully, H. GELSTON.

Baltimore County, Md., Oct. 2d, 1849.

Having witnessed the operation of Mr. A. W. Willett's Threshing Machine, I take pleasure in recommending it to any who may wish to employ or purchase such a Machine. This Machine made by Messrs. Murray & Clark, was employed by me for something less than two days and a half in getting out a crop of oats. In my judgment it performed its work thoroughly, and with sufficient rapidity—almost without friction, and what is unusual, without very little noise. The arrangement of the teeth is such as to prevent their flying out and endangering the men when any of them are broken by the accidental introduction of small stones or other hard substances. SAML. McCULLOH, JR., M. D.

About the *Hand Corn Shellers* which received the Premium at the late Fair of the Agricultural Society, that will shell and seperate 50 barrels of corn per day, we would refer to the following gentlemen who have them in use. Joseph H. Pool, William Crawford, Joshua Stewart. William Temple, Esqr. of Pasquotank County, N. C. and Nathan Halstead, Esq. of Camden County, N. C. A great number of these Shellers have been sent to Savannah and other places.

About *Portable Mills*, which we Manufacture for the different purposes of Grinding Wheat, Corn, Rye, Oats, Sugar, Coffee, Salt, Salt Petre, Red Lead, Chrome Ore, Magnesia, Alum Clay, Tarturic Acid, Cream Tartar, all kinds of Spices, Paints, Plaster, Coal and other purposes. The following gentlemen have them in use in the City of Baltimore. Mr. F. S. Cappell, Mr. William Davison, Baltimore Eagle Works, E. Stabler & Co., Messrs. Richstine, Mr. Vanness, Mr. McNeal, Messrs. Powell and Rimby. The largest of this kind of Mills is now in operation by Steam Power at the Junction of the Macon and Georgia Rail Road, Grinding Corn and Wheat.

We also Manufacture superior *Bone Mills*, and would refer to P. S. Chappell, John Kettlewell and Wm. Davison, Esqs.

Having served regular Apprenticeships to the Millwright Business, we feel assured that we can give perfect satisfaction to all who may favor us with their custom, either by day work, or in the performance of contracts, and will warrant all Grist, Saw, and other Mills, &c., propelled by Water, Steam, Wind or other Power, planned and erected by us, to operate well. Mill Work or other Machinery repaired at the shortest notice.

Nearly all the above gentlemen are acquainted with us as Millwrights. All orders thankfully received and promptly attended to.

MURRAY & CLARK, MILLWRIGHTS & MACHINISTS, *No. 21 York street, near Light st., Baltimore.*

Nov. 1,

SHEW & MARKS'
DAGUERRIAN GALLERY,
117 *Baltimore street.*

HIGHEST PREMIUM AWARDED at the late *Fair of the Maryland Institute*, for the BEST DAGUERREOTYPES exhibited.

☞ Likenesses accurately taken in any weather, for Lockets, Signet Rings, &c., and satisfaction guaranteed in all cases.

☞ Paintings and Engravings correctly copied. jan1

DUVALL & IGLEHART,
GROCERS AND COMMISSION MERCHANTS,
No. 78 LIGHT STREET WHARF,

Invite the attention of their friends, and the public generally, to their large and general assortment of GROCERIES, embracing every *article* in that line of business, and which they will sell upon pleasing and liberal terms, and at the lowest prices. Any one in want of any article in their line will find it to their advantage to give them a call. *They will also pay particular attention to the sale of all kinds of produce.*

Baltimore, October 1, 1849.

TO FARMERS!
Rushbrook Farm for Sale.

SITUATED Three Miles north-east of Towsontown, Baltimore county, within 10 miles of this city, containing 450 acres, more or less; from 175 to 200 acres in cultivation. It is estimated that there are from 4 to 5000 cords of wood, consisting to a very great extent in chesnut rail timber—all the fields in cultivation have been heavily limed, the most of them at 100 bushels per acre. The above farm is newly and thoroughly fenced. The other improvements are, three new and excellent good sized log houses, and one extra size; also one extensive manager's house, having some 8 or 10 rooms; barn (called the three decker) 65 by 45 feet, just new, and having cost $1500, and built in the best manner; corn, hen and other houses; smith shop, and kiln capable of burning 1500 bushels. This farm is undulating; land very kind and susceptible of very high improvement. There is a fine young peach orchard. City property, or stocks will be taken in exchange at a fair valuation. For terms and other particulars, apply to

SAMUEL SANDS,
sep 1 Office American Farmer.

FOR SALE—A beautiful young Durham BULL, roan color. The owner believes he has few superiors, but, having no use for him, will sell him, delivered in the city of Baltimore, for $65. He can be seen at the farm of C. F. Williams, Esq., near Pikesville. Enquire, for further particulars, at this office.

Also, for sale, a Devon HEIFER, with a heifer calf by her side, now 4 months old. Price, $125. She can be seen as above. ap 1

HAY RAKES.—100 doz. Hay Rakes, of superior make; also, Horse Rakes, of the most approved pattern. For sale by E. WHITMAN, JR.
apl

CHEMICAL MANURE,

Manufactured by the "George Bommer New York Manure Company."

THIS Manure is made chiefly of Fecal matter from the sinks, in which is mixed a small portion of substances that are of themselves powerful agents of vegetation, and possess the virtue to fix and retain the ammoniacal gas of the matter.

The great desideratum of the agriculturist has always been, to find out some process by which excrements might be solidified quickly, and all their fertilizing properties so strongly retained, that the manure may dissolve slowly in proportion to the requirements of the plants, and therefore, produce its effects for a time equal to that of farm manure.—This process was at length discovered by the French Chemists, and is now practically carried out with complete success in more than sixty of the large cities in France, where such factories are in full operation.

The "G. B. N. Y. M. Co." has established a Factory, on an extensive scale, near the city of New York, in which they manufacture this kind of manure, and as the fecal matter can be obtained in this country at less expense than in France, the manure will not only be made stronger, but will be sold at a price less than in the French cities, this price being so established as to afford only the reasonable remuneration to which we are honestly entitled, the more so, as its manufacture is not of the most agreeable kind, and withal troublesome and laborious.

The manufacturing department is under the special charge of George Bommer, esq., who has a perfect scientific and practical knowledge of manure matters generally, and the company has established a standard for the strength of its manure from which it is intended not to deviate, so that its customers may at all times be furnished with an article really worth what they pay for it. Our manure is an inodorous grain, and as the substances from which it is made contain of themselves all the elements necessary to the fertilization of the soil and growth of plants, it is extremely well adapted to such purposes.

To manure an acre highly, it requires 12 to 15 barrels or 36 to 45 bushels spread broadcast. Applied in hills, one half of this quantity will suffice. Its application is simple and easy, and printed instructions for its use will accompany every parcel sent to order.

We desire it to be remembered, that our manure has no similarity to another, known under the name of "Poudrette," although the principal componen of ours (the Fecal matter) is the same as that which is used in poudrette in a much less proportion; our auxiliary substances, as well as our manufacturing process, are altogether of a different nature and kind.

It belongs not to us to eulogize further the quality of our manure, what we desire at present is, to call upon the members of the agricultural community to try it! and we have reasons to assure them, that they will find it the most profitable manure they ever used.

Price, taken at the Factory:

37½ cents per bushel, without package; 50 cents per bushel, packed in barrels; or, $1.50 per barrel, package included.

Orders addressed to the above company at this office, 72 Greenwich-st., New York, will be promptly attended to.

By order of the Board of Directors,
GEORGE BOMMER, Director.

New York, January, 1849.

☞The Factory will be in full operation early in the spring, and manure can be had in April next, and at any time afterwards. Feb. 1-tf.

HUSSEY'S REAPING MACHINE.

THE subscriber continues to manufacture his *REAPING MACHINES*, in Baltimore. Farmers are reminded to forward their orders at as early a day as the appearance of their fields will justify, that a proper preparation can be made to supply the increased demand—the question with the farmer now being not whether a machine will cut his crop, but whether he will have a good crop to cut with a machine.

Every improvement will be made this year to render the machines durable and perfect.

Price of Reapers, from 100 to 170 dollars. Extra parts will be furnished at moderate prices, and may be worth to the farmer ten times their cost.

Price of Mowing Machine, including Reaping, $125, and delivered in Baltimore, at any time from February to July.

Baltimore, March 1, 1850. OBED HUSSEY.

Montgomery, August 4, 1849.

This is to certify that I had one of O. Hussey's Reaping machines at work in my field, cutting Timothy Grass a part of two days, and cut in fourteen hours with said machine twenty-eight acres, with one span of horses; it was done in a neater style than it could be done in any other way. The cutters of said machine were not sharpened during the time of cutting said field of grass, and the last acre was cut in as good and neat a style as the first. I have also seen said Reaper cutting wheat, and I consider it the best machine for cutting lodged grain that I have ever seen operate.

ap1 DANIEL S. GRAY.

GUANO.—100 tons Government Peruvian, just inspected. 100 tons Patagonian, a superior article; 30 tons Chilian. Timothy, Clover and Orchard Grass Seed for sale, in lots to suit purchasers. T. W. & L. LEVERING,
ap1 No. 114 Pratt street Wharf.

TAYLOR'S
PATENT HAMES.
Patented January 15, 1850.

PUBLIC ATTENTION is solicited to this VALUABLE IMPROVEMENT in HAMES, which is both simple and effective. The benefits derived from the above improvement are of immense advantage both to the Owner and to the Worker of Horses—being a saving of expense as well as of time!!!

☞ The advantage of these Hames are numerous—they can be fastened and unfastened as readily in the Dark as in the Light—and can be done with thick gloves or mittens. If a horse falls down or gets entangled in the harness, by this Improvement he can be *instantly relieved*. A boy, female, or any one that is able to throw the harness on a horse, can fasten the hames very readily.

☞ This Improvement can be attached to Hames that are now in use, at small cost.

☞ These Hames were exhibited at the State Agricultural Fair, and were universally approved of—and for which a Premium was awarded.

☞ The above Hames and Improvements can be had of the Patentee. MORTIMER TAYLOR,
No. 38 Eutaw street, adjoining A. G. Mott's Plough Factory, Baltimore, Md.

"I have used Mr. Mortimer Taylor's patent Hames on my team, and they have given the most unbounded satisfaction. In fact, my wagoner thinks them beyond all praise."
THOMAS LUCAS.
Dover P. O., Baltimore county, Md.

I have in use Mr. Mortimer Taylor's patent Hames on my teams on the Baltimore and Susquehanna rail road, and they have given every satisfaction; in fact, it is to the interest of all who have horses in use to use Taylor's patent Hames.
EDWARD NORWOOD, Baltimore, Md.
BALTIMORE, March 27, 1850.

I have used Mr. Taylor's patent Hames, on the Baltimore and Ohio rail road, and they have given universal satisfaction, and I have adopted them. J. B. MILLER,
ap 1t° Supervisor of Stock Balt. and Ohio R. R. Co.

Best Agricultural Implements!

The *first premium* of the Maryland Agricultural Society was awarded to E. Whitman, Jr., in 1848 and 1849, for the largest and best display of Agricultural Implements. f1

E. WHITMAN'S
Agricultural Warehouse
AND
SEED STORE,
No. 55 Light street, Baltimore,

WILL contain, this season, the largest stock of Improved AGRICULTURAL IMPLEMENTS ever offered for sale in this country, amongst which will be found
100 Whitman's Superior Wrought Iron Railway HORSE POWERS, which received the *first premium* at the last Fair of the *Maryland Agricultural Society*.
100 LEVER or SWEEP POWERS, among which will be found all the latest improvements; also, the Eddy or Tapin Power, which is portable, simple and durable, consisting of one wheel only.
200 Whitman's THRESHERS, which received the *first premium*, in Baltimore, in 1849. The cylinder of this Thresher, being all in one piece of iron, will last **100 YEARS**, in constant use. A great improvement has recently been made in the teeth or spikes, which makes it *the most perfect machine* now in use.
100 other THRESHERS, comprising various kinds and improvements.
7,000 PLOUGHS, consisting of every kind now in use.
500 Premium Cultivators, $4, $4½, $5 and $6.
500 " Grain Cradles, of approved kinds.
50 " Corn Planters; price, $20.
100 " Seed Sowers; price, $6.
Grant's celebrated Fan Mills; prices from $25 to $40.
Bamborough's " " " $28, 30, $32 and $36.
Strong's, Rice's, Clinton, Boston and other Fans.
Improved Harrows, Straw Cutters, Corn Shellers, Corn and Cob Crushers, Fodder Cutters and Grinders, Ox Yoke, Dirt Scrapers, Churns, Scythes and Sneaths, Wheelbarrows, Root Pullers, Shovels, Spades, Hoes, Forks, Buckets, &c. &c.
Also, a general assortment of
FIELD AND GARDEN SEEDS,
Which are warranted to be fresh and genuine.
ap1 E. WHITMAN, JR.

CONTENTS OF APRIL NO.

Prize Essay on Farm Buildings, by Jno. Wilkinson	338–350	Lime, Marling	338
		Pitching the Corn Crop	"
		Agricola on the Central So.	339
Work on the Farm	344	Mixing Plaster with manure	"
Work in the Garden	347	Bee Hive, by T. P. Stabler	348
Shell Banks, their origin and value	349	Machine for raising Marl	"
		Prize lot of Potatoes	349
Meeting of the State Ag. So.	350	Steam for Farm purposes	"
The Cow Pea, by W. Dodge	350–354	H. on turning under green crops	350
Eritorial Convention	350	Dr. Higgins' Report	350
Guano and its price	351	Cure for Bots in horses	"
R. Sinclair, Jr's. new Catalogue	351	Epsom Salts	"
		Reform Bill, notice of	"
Dr. Higgins' Report	352	Flower Garden for April	351
"The Farmer" in Va.	352	Benj. Webb's corn crop	352
Acknowledgements — Wheat crop	352–3	To Correspondents,	"
		Legislative action,	"
Dignity of Farmers Profession	353	On the Potatoe rot,	353
		A Voice from St Mary's	354
Upland Rice	355	Markets, weather, &c	"
Wire Gate, Oxen vs Horses	"		